THE

BOTANICAL REGISTER:

CONSISTING OF

Coloured Figures

OF

EXOTIC PLANTS,

CULTIVATED IN

BRITISH GARDENS;

WITH THEIR

HISTORY AND MODE OF TREATMENT.

THE DESIGNS BY

Sydenham Edwards,

AND OTHERS.

VOL. V.

———viret semper———nec fronde caducâ
Carpitur.

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APPENDIX TO THE CATALOGUES OF BOOKS

IN THE

FIRST, SECOND, THIRD, AND FOURTH VOLUMES;

OR,

List of Books quoted in the Fifth Volume in addition to those quoted in the First, Second, Third, and Fourth.

ABEL chin. Narrative of a Journey in the interior of China, &c. &c. By Clark Abel. London, 1818. 4to.

Act. soc. nat. scrut. hafn. Shrivter af Naturhistorie Selskabet. Kiöbenhavn, 1739; seqq. 8vo.

Act. taur. Mémoires de l'Académie Royale des Sciences de Turin. Turin, 1782—1796. 4to.

Andrews's roses. Coloured engravings of Roses. By H. C. Andrews, London, 1805, seqq. 4to.

Arduin. spec. Petri Arduini animadversionum botanicarum specimen I. Petavii, 1759. Specimen II. Venetiis, 1764. 4to.

Bartram trav. Travels through North and South Carolina and West Florida, &c. &c. published with Copper Plates. By William Bartram. Philadelphia, 1791. 8vo.

Baumgarten en. transylv. vol. 3. Vide suprà in Catal. libror. Volum. tertii. Tomus tertius. Vindobonæ, 1816.

Beckman beytr. zur gesch. der erfind. Johann Beckman. Beyträge zur geschichte der Erfindungen. Leipzig, 1780—1782, 1784—1788, 1790—1792, 1795—1796. Voll. 4. 8vo.

Bertol. pl. genuen. Ant. Bertoloni. Plantæ genuenses quas annis 1802—1803 observavit et recensuit. Genuæ, 1804. 6 fasc. in 8vo.

Biv. Bernardi sic. pl. cent. Sicularum Plantarum Centuria Prima et Secunda Antonini Bivona Bernardi. Panormi, 1806. 4to.

Bonani. Fide Biv. Bernardi cit.

Carey beng. (v. *hort. beng.)* Hortus Bengalensis, or Catalogue of the plants growing in the Honourable East India Company's Botanic Garden at Calcutta. (W. Carey). Serampore, 1814. 8vo.

Catesb. carol. The Natural History of Carolina, Florida, and the Bahama Islands, by Mark Catesby. 2 vols. London, 1731, 1743. fol.

Crantz austr. Henr. Joan. Nepom. Crantz Stirpium Austriacarum Pars I. II. Viennæ, 1769. 4to.

Cup. hort. cath. Franciscus Cupani. Hortus Catholicus, seu Principis Catholicæ. Neapoli, 1696. Voll. 2. 4to.

Cup. pamph. Idem. Pamphytum Siculum, seu Historia Plantarum Siciliæ. fol.

Cyrill. neap. Dom. Cyrilli Plantarum rariorum Regni Neapolitani Fasciculus 1 et 2. Neapoli, 1788, 1792. fol.

D'Asso fl. arag. Ign. D'Asso. Synopsis Stirpium indigenarum Aragoniæ. Massiliæ, 1779. 4to.

Delaroche eryng. Eryngiorum Historia, auctore F. Delaroche. Parisiis, 1808. fol.

Dunal anonacées. Monographie de la Famille des Anonacées. Par Michel-Felix Dunal. Montpellier, 1817. 4to.

Etling. salv. Andr. Ernest Etlinger, Commentatio botanica de Salviâ. Erlangæ, 1777. 4to.

Gesn. in Cordi hist. Valerii Cordi opera studio Conradi Gesneri collecta. Argentorati, 1561. fol.

Gouan illustr. Ant. Gouan. Illustrationes et observationes Botanicæ. Tiguri, 1773. fol.

Hort. angl. See *Cat. pl. hort. londin.* in the Catalogue of Books given in the first Vol. of this work.

Hort. Cath. Vide suprà *Cup. hort. cath.*

Icon. Kæmpf. Icones selectæ plantarum, quas in Japoniâ collegit et delineavit Engelb. Kæmpfer, ex archetypis in Musæo Britannico asservatis (edidit Jos. Banks). Londini, 1791. fol.

Kæmpf. amœn. Engelb. Kæmpfer Amœntitatum Exoticarum Fasciculi 5. Lemgoviæ, 1712. 4to.

Lapeyr. pyren. Figures de la Flore des Pyrenées, par Philippe Picot de Lapeyrouse. Tome 1, Paris, 1795. Tome 2, Paris, 1801. fol.

L'Herit. stirp. Stirpes novæ descriptionibus et iconibus illustratæ à Car. Ludov. L'Heritier. Parisiis, 1784—1785. fol.

Linn. syst. nat. ed. 12. Caroli à Linné Systema Naturæ, &c. &c. Holmiæ, 1766. Voll. 2. 8vo.

Linn. syst. veg. (ed. 13.) Car. à Linné Systema Vegetabilium. Gottingæ et Gothæ, 1774. 8vo.

Mem. chin. Mémoires sur les Chinois par les Missionaires de Pekin. Tomes 15. Paris, 1776—1791. 4to.

Mém. de l'inst. sc. phys. Mémoires de l'Institut National des Sciences et Arts, Sciences Mathématiques et Physiques. Paris, an 6, seqq. 4to.

Mich. gen. Nova Plantarum Genera, Auctore Petro Ant. Micheli. Florentiæ, 1729. fol.

Pohl fl. bohem. Tentamen Floræ Bohemiæ, von Johann Emanuel Pohl. Vol. 1. Prag, 1810. Vol. 2. Prag, 1815. 8vo.

Probst. hort. Bosian. Vergleichniss derer inn-und auslandischen Baüme, Stauden, und Sommergewachse des Caspar Bosianischen Gartens, in vier ordnungen wie solche sich im Jahr 1737 befinden, durch Johann Probsten. Leipzig, 1738. 8vo.

Redouté's roses. Les Roses. Par P. J. Redouté. Paris, 1817. Livraison 1re. seqq. 4to.

Riv. hex. (or *Rivini hexapet. supplem.)* Icones plantarum quæ sunt flore irregulari hexapetalo; *(absque loco vel anno)*. fol.

Riv. tetrap. Aug. Quir. Rivini Ordo Plantarum, quæ sunt flore irregulari tetrapetalo. Lipsiæ, 1691. fol.

Röm. archiv. Archiv für die Botanik, herausgegeben von Joh. Jac. Römer. Leipzig, 1796, seqq. 4to.

Rupp. gen. Henr. Bern. Ruppius. Flora Jenensis. Ed. 3. ab A. Haller. Jenæ, 1745. 8vo.

Shaw specimen. Specimen Phytographiæ africanæ, &c. &c. or a Catalogue of some of the rarer Plants of Barbary, Egypt, and Arabia. Printed as an Appendix to " Travels and Observations relating to several Parts of Barbary and the Levant, by Thomas Shaw. Oxford, 1732. fol."

Smith fl. brit. Flora Britannica, auctore Jac. Edv. Smith. Vol. 1—3. Londini, 1800, 1804. 8vo.

Smith ic. pict. Icones pictæ plantarum rariorum, auctore Jacobo Edvardo Smith. Fascic. 1—3. London, 1790—1793. fol.

Sonnerat it. Voyage aux Indes Orientales et à la Chine, par M. Sonnerat. Paris, 1776. 4to.

Sowerby fl. lux. The Florist's Delight or Flora Luxurians. fasc. 3. London, 1789—1791. fol.

Suter fl. helv. Flora Helvetica. Johann Rudolf Suter. Turici, 1802. 2 Voll. 12mo.

Swert. floril. Eman. Swertius. Florilegium tractans de variis Floribus. Francofurti, 1612. fol.

Thunb. diss. (Protea.) C. P. Thunberg Dissertatio de Proteâ. Upsaliæ, 1781. 4to.

Thunb. fl. cap. Car. Petrus Thunberg. Flora Capensis. Vol. 1. Upsaliæ, 1813. Vol. 2. fasc. 1. Hafniæ, 1818. 8vo.

Usteri ann. (v. Usteri's annal. der botanik.) Annalen der Botanik, herausgegeben von Paul Usteri. 1—24 Stuck. Zurich, 1791. Leipzig, 1800. 8vo.

Villars dauph. (v. delph.) Histoire des plantes de Dauphiné par M. Villars. Tomes 3. Grenoble, 1786—1789. 8vo.

Waldst. et Kitaib. hung. Franc. Comitis Waldstein et Pauli Kitaibel descriptiones et icones plantarum rariorum Hungariæ. Tom. 1—3. Viennæ, 1802.

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Syd Edwards del. Pub by J. Ridgway & Sons 170 Piccadilly March 1 1819 Smith Sc

JASMINUM humile.

Yellow Italian Jasmine.

DIANDRIA *MONOGYNIA.*

Nat. ord. JASMINEÆ. *Jussieu gen.* 104. *Div. II.* Fructus baccatus.
JASMINEÆ. *Brown prod.* 1. 520.
JASMINUM. Suprà vol. 1. *fol.* 1.

J. *humile,* foliis alternis acutis ternatis pinnatisque, ramis angulatis, laciniis calycinis brevissimis. *Hort. Kew.* 1. 9.
Jasminum humile. *Lin. sp. pl. ed.* 2. 1. 9. *Mill. dict. ed.* 8. *n.* 2. *Willd. sp. pl.* 1. 40. *Vahl enum.* 1. 33. *Hort. Kew. ed.* 2. 1. 17.
Jasminum humile luteum. *Knorr thes.* 1. *tab.* 1.
Jasminum luteum. *Lobel ic.* 2. 106. *Hort. Eyst. æstiv. t.* 40. *fig.* 2. *Bauh. hist.* 2. 102.

Rami *glabri, erecto-patentes.* (Fol. *plerumque simplicia et ternata, rariùs ternata et pinnata:* foliola *ovata; vix attenuata, obscurè nervosa, avenia, glabra, pollicaria, lateralia parùm minora.* Vahl l. c.) Pedunculi *terminales, erecti, gemini aut terni, triflori v. abortû florum lateralium uniflori, punctis minutissimis albis conspersi.* Cal. *brevissimus, 5-dentatus.* Cor. *lutea;* tubus $\frac{3}{4}$ *partes unciæ longus vel circa, rectus;* limbus *duplo brevior vel magis, laciniis oblongis, obtusissimis, margine reflexis, sæpè retusis cum paucâ et minutâ pube ad apicem.* Anth. *sessiles, oblongæ, acutulæ, angustæ, luteæ, emicantes tubo.* Stylus *et* stigmata *virentia.*

The present is a low shrub, seldom exceeding three or four feet in height. It is much more common in the gardens about Paris, where it serves for ornamental hedges, than about London, where the winters are too damp for it, the branches being generally more or less damaged during that season; nor is it every year that serves for the expansion of the blossom in any tolerable state. Cultivated by Mr. John Tradescant in 1656. No botanist has been yet able to inform us from what quarter of the world it derives its origin; and though known in our gardens by the name of the Italian Jasmine, it has only been called so from the plants of it having been formerly imported by the Italian warehousemen, along with their Orange-trees, &c. from Italy. It seems to us nearer to JASMINUM *revolutum,* figured in the 178th article of this work, than to any other species we are acquainted with.

Miller has the following article concerning it.

"It is frequently called, *Italian* yellow Jasmine by the "gardeners, the plants being annually brought from Italy, "by those who come over with Orange Trees. These plants "are generally grafted upon the *Common* yellow Jasmine "stocks, (JASMINUM *fruticans)*, so that if the graft decays, "the plants are of no value. This sort is somewhat tenderer "than the Common, yet will it endure the cold of our or- "dinary winters, if it be planted in a warm situation. The "flowers of this kind are generally larger than those of the "Common yellow sort, but have very little scent, and are "seldom produced so early in the season. It may be pro- "pagated by laying down the tender branches, or by budding "or inarching it upon the Common yellow sort, the latter "of which is preferable, as making the plants hardier than "those which are obtained from layers. They should be "planted against a warm wall; and in very severe winters "will require to be sheltered with mats, or some other "covering, otherwise they are subject to be destroyed."

The drawing was taken at the nursery of Messrs. Whitley, Brames, and Milne, Fulham. The plant flowers from July to September.

It is only lately that the natural abode of the Common white Jasmine *(officinale)* has been made known to the naturalist; and it appears to us very probable that that of the present species will be at last discovered by the botanist somewhere in the same parts, viz. Georgia and Circassia.

NOTES.

In vol. 3. fol. 178, and vol. 4. fol. 264; for "JASMINEÆ. *Brown prod.* 350." read "JASMINEÆ. *Brown prod.* 1. 520."

In *fol.* 344 of the fasciculus for last month, we should have mentioned that the BROMELIA *pallida* had been lately published in Loddiges's Botanical Cabinet (No. 76), under the title of TILLANDSIA *amœna.* To TILLANDSIA it cannot however belong, as having an inferior germen; but might have been added as a synonym to our plant.

Syd. Edwards. del.

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Smith. sc.

PROTEA acerosa.
Pine-leaved Protea.

TETRANDRIA *MONOGYNIA.*

Nat. ord. PROTEÆ. *Jussieu gen.* 78. *Div. I.* Semen nudum aut fructus monospermus.
PROTEACEÆ. *Brown in trans. linn. soc.* 10, 15, *seqq.* *Div. I.* Fructus clausus.
PROTEA. *Suprà vol.* 3. *fol.* 208.

Div. Flores laterales.

P. *acerosa,* floribus lateralibus, foliis subulatis, receptaculo convexiusculo: paleis obtusis. *Brown loc. cit.* 95.

Protea acerosa. *Hort. Kew. ed.* 2. 1. 194.

Caulis *brevis.* Rami *erecti, glabri.* Folia *lævia.* Involucra *ramea, subaggregata, brevitèr pedunculata;* bracteis *obtusis, interioribus pube diutiùs persistenti subsericeis.* Calyx *muticus, apice barbato.* Receptaculi *paleæ connatæ.* Squamulæ hypogynæ *subulatæ.*

OBS. *Varietas? Foliis longioribus (sesquiuncialibus) semiteretibus in Herbario et Hort. D. Hibbert vidi, quæ secundùm D. Niven. 3-4 pedes alta in montosis solo fertiliori lecta. Hæc* PROTEA virgata. *Andrews's reposit.* 577. Brown loc. cit.

Introduced from the Cape of Good Hope by Messrs. Lee and Kennedy, of the Hammersmith nursery, in 1803. Requires, like the rest of its congeners, to be cultivated in bog-earth, with which a smaller proportion of hazel loam has been mixed, and to be guarded from frost and damp in an airy greenhouse. Blossoms from March to May.

A low shrub. *Stem* short. *Branches* upright, smooth. *Leaves* subulate, smooth. *Flowers* lateral. *Involucres* growing with the branches, disposed in a kind of cluster, shortly peduncled; *bractes* obtuse, inner ones somewhat silkily furred with a pubescence that endures for some time. *Calyx* awnless, bearded at the summit. *Receptacle* somewhat convex: *paleæ* (the chaff-like membranes which separate the group of florets within the involucre and spring from the receptacle) obtuse, connate. *Hypogynous squamulæ* (small scales below the florets) subulate (awl-shaped).

Mr. Brown saw in Mr. Hibbert's Herbarium a plant, which he thinks likely to be a variety of the present, and

which was found by Mr. Niven, at the Cape, growing on a richer soil in the hilly country near Sonder-End, to the height of three or four feet. This is the one figured in the 577th plate of Andrews's Repository. Its leaves are long (an inch and a half) and semicylindrical.

Sydl Edwards del. Pub. by J. Ridgway & Sons 170 Piccadilly. March 1. 1819. Smith sc.

AMARYLLIS reticulata β.

Striped-leaved Amaryllis.

HEXANDRIA *MONOGYNIA.*

Nat. ord. NARCISSI. *Jussieu gen.* 54. *Div. II.* Germen inferum.
AMARYLLIDEÆ. *Brown prod.* 206. *Sect. I.*
AMARYLLIS. Suprà vol. 3. *fol.* 226.

Div. V. Bi-multifloræ. Tubus nudus. Folia bifaria.

A. *reticulata*, pluriflora; foliis pluribus, lorato-oblongis, infernè versùs involuto-angustatis; corollâ subcernuâ, longè cucullato-tubulosâ, limbo obliquè ringente. *Nob. in journ. of scien. and the arts.* 2. 356.

Amaryllis reticulata. *L'Herit. sert. angl.* 12. *Hort. Kew.* 1. 417. *ed.* 2. 2. 225. *Curtis's magaz.* 657. *Thompson's bot. displ.* 7. *Andrews's reposit.* 179. *Redouté liliac.* 424.

(β) foliis striâ longitudinali argenteo-candicante medio percursis.

Bulbus *rotundus, indusio pullo.* Folia 4-5, *intensè virentia,* 7-9-*uncialia, latitudine unciali ad sesquiuncialem, involuta, costâ mediâ carinata, acuta.* Scapus *glaucus, subcompressus, brevior foliis.* Flores *pedunculati, uncias* 4-5 *longi.* Cor. *lilacino-punicans, venis intensiùs coloratis reticulata, fauce albicans;* tubus *unciâ longior, indè in* faucem *angustè turbinatam dilatescens; labium superius* limbi *reflexum;* laciniæ *ovali-lanceolatæ.* Germen *dilutè coloratum, oblongum, rotundatè trigonum.* Semina *pauca, baccata, globosa, atrosanguinea. β. sata seminibus persistit.* Nob. loc. cit. 357.

The bulb of this fine plant was received a few years ago by Mr. Griffin from the Brazils. It differs from the variety previously known in our collections, by having a larger flower, and a curious silvery white stripe which runs down the middle of every leaf, very like what we see in the foliage of Crocus. Seed has been abundantly produced in the hothouse at South Lambeth, where the present drawing was made; and the seedlings which have been raised from it are all characterized by the same white stripe we see in the parent plant. Whether this mark should decide at once its specific separation? or decision be deferred for further experience? we leave to others to determine.

Bulb round; integuments dark grey. *Leaves* 4-5, deep green, lorately oblong, 7-9 inches in length, one to one and a half broad, involutely narrowed downwards, pointed, midrib keeled. *Scape* glaucous, slightly compressed, shorter than the leaves. *Flowers* peduncled, 4-5 inches long.

Corolla of a lilac-crimson colour, subcernuous, longly and cucullately tubular, marked with deep-coloured netted veins, white on the inside of the faux; *tube* more than an inch in length, then widening into a narrow turbinate *faux*; *limb* obliquely ringent, upper lip reflex, segments ovally lanceolate. *Germen* faintly coloured, oblong, roundedly trigonal. *Seeds* black-purple, of the size of a pea, few, berried, globular.

E D Smith del.   Pub by J Ridgway & Sons 170 Piccadilly March 1 1819.   Smith sculp

CAMELLIA japonica; *v.*
Single white Camellia, or Japan-rose.

MONADELPHIA *POLYANDRIA.*

Nat. ord. AURANTIA. *Jussieu gen.* 262. *Div. III.* Fructus polyspermus capsularis. Folia non punctata. Genera AURANTIIS et MELIIS affinia.
THEACEÆ. *Mirbel in Nouv. Bulletin.* 3. 382.
CAMELLIA. *Suprà vol.* 1. *fol.* 22.

Camellia japonica. *Vide suprà vol.* 1. *fol.* 22.
(*v*) flore albo simplici.

In the twenty-second article of the present publication, where we spoke of the Pompone variety of this popular species, we enumerated twelve others, being all that were then in our collections. The present has been introduced long since, and is yet very rare. Although the double white CAMELLIA had been familiar in our gardens for some years past, yet the single white one continued so long a desideratum with our florists, that they began to doubt the existence of it..

Like the rest of the varieties of this species, it has been procured from China.

The drawing was taken from a plant that flowered in December last at Mr. Lee's nursery, Hammersmith; and is the only one we have seen.

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LYCIUM afrum.

African Box-thorn.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Solaneæ. *Jussieu gen.* 124. *Brown prod.* 443. *Div. II.* Fructus baccatus.

LYCIUM. *Cal.* urceolatus brevis, 5-fidus aut 5-dentatus. *Cor.* longior tubulosa, limbo erecto quinquelobo aut plano quinquepartito. *Fil.* basi tumida et villosa, mediæ corollæ infixa, intrà limbum erectum latentia, suprà planum exserta; *anth.* ochroleucæ. *Stig.* bisulcum. *Bacca* subrotunda; *sem.* reniformia. *Frutices plerique spinosi, ramulis apice pungentibus; fol. interdùm fasciculata; flores axillares solitarii aut geminati.* Juss. loc. cit. 126.

L. *afrum*, foliis linearibus subcarnosis basi attenuatis fasciculatis, ramis laxis spinescentibus, pedunculis calyce longioribus, staminibus corollæ tubo inclusis. *Willd. enum.* 1. 245.

Lycium afrum. *Lin. sp. pl. ed.* 2. 1. 277. *Mill. dict. ed.* 8. *n.* 1. *ic. t.* 171. *fig.* 1. *Hort. Kew.* 1. 256. *ed.* 2. 2. 3. *Zorn ic.* 159. *Murr. in commentar. gotting.* 1779. 12. *Willd. sp. pl.* 1. 1057; (*excluso Mich. gen.* 224. *t.* 105. *f.* 2.).

Lycium foliis linearibus flore fructûque majori. *Trew ehret. tab.* 24. *fig.* 2.

Jasminoides africanum, jasmini aculeati foliis et facie. *Nissol in act. paris.* 320. *t.* 12.

Frutex *rigidus, tortuosus, nodosus, orgyalis vel duplus, robustè longèque spinosus; cortice pallido.* Fasciculi foliorum *undique sparsi numerosi.* Flores *inodori, solitarii, penduli, è centro fasciculorum foliorum;* pedunculi *uniflori, filiformes, glabri, deflexi, longiores calyce, duplo breviores foliis atque corollâ.* Cal. *3-plo ferè brevior corollâ, virens, cupulato-tubulosus, glaber, 5-dentatus, dentibus acuminatis ciliatis tomento minuto.* Cor. *tubata, ¾ partes unciæ longa v. circitèr, lurido-purpurascens, virore variè tincta, diametro pennæ scriptoriæ minoris, recta:* tubus *parùm supernè ampliatus, 4-plo fermè longior limbo, uti et calyx 10-nervis, intùs fauci saturatè violacea:* limbus *campanulato-rotatus,* laciniis *oblato-subrotundis v. subreniformibus, basi imbricato-contiguis, margine depressis.* Fil. *albicantia, inclusa, erecta, inserta tubo in plano calycis, pedem limbi attingentia, infernè fusco-barbata, deindè glabra setaceo-filiformia:* anth. *sagittato-oblongæ, breves, erectæ, a basi infixæ,* polline *ochroleuco, farinaceo.* Germ. *breve, oblato-subconicum, glabrum,* disco *obsoletè 10-dentato insidens:* stylus *subclavato-filiformis, erectus, viridis, æqualis staminibus:* stig. *subpileato-capitatum, saturatè viride, transversè oblongum et subreniforme.*

Certainly native of the Cape of Good Hope; but not of Spain and Portugal, as most books have it. Comes very near to *rigidum,* also a Cape species, where the spines are however more numerous and robust, and the flowers much shorter.

Cultivated by the Duchess of Beaufort in 1712. A hardy greenhouse plant. Will survive our milder winters when planted in a warm situation against a wall. The drawing was taken from a plant we ourselves raised from seed gathered at the Cape of Good Hope.

The following is its description as given by Miller. "It "rises with irregular shrubby stalks ten or twelve feet high, "sending out several crooked knotted branches, covered "with a whitish bark, and armed with long sharp spines, "upon which grow many clusters of narrow leaves; these "thorns often put out one or two smaller on their sides, "which have some clusters of smaller leaves upon them; "the branches are garnished with very long leaves, an inch "and a half long, and at the base of these come out clusters "of shorter and narrower leaves. The flowers come out of "the side of the branches, standing upon short footstalks; "they have a short permanent calyx of one leaf, which is "tubulous, and cut into five segments at the brim; the "flower is funnelform, of one petal, with a long incurved "tube, cut into five obtuse segments at the brim, they are "of a dull purple colour, and have five stamina almost as "long as the tube, with erect anthers. In the centre is "situated a roundish germen, supporting a style which is "longer than the stamina, crowned by a bifid (more truly "a capitate) stigma. The germen afterwards turns to a "roundish fleshy berry, of a yellowish colour when ripe, inclosing several hard seeds."

May be raised with great facility from cuttings. Frequently ripens its seeds with us.

Nineteen species are recorded in Persoon's Synopsis. By some or other of them the genus pervades every quarter of the globe. The nearest approach it makes to our Island is by the Southern part of France. One species only has been recorded by Mr. Pursh as native within the boundaries of the United States; and that grows in the warmer regions.

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HEDYSARUM latifolium.

Broad-leaved Hedysarum.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. IX.* Cor. irregularis papilionacea. Stam. 10 diadelpha. Legum. articulatum articulis monospermis.

HEDYSARUM. Cal. 5-fidus, persistens. *Carina* transversè obtusa. *Legum.* articulis subrotundis compressis. *Herbæ aut rariùs suffrutices; folia simplicia aut gemina aut ternata aut impari-pinnata,* stipulis *à petiolo distinctis; ternatorum* petioluli *in* petiolum *articulati, sæpè substipulacei stipulâ filiformi;* flores *axillares pedunculis uni aut multifloris, aut sæpiùs terminales spicati v. paniculati; horum* bracteæ *nunc majores variè constructæ, nunc parvæ aut subnullæ.* Legum. *formâ varium modò subcylindricum articulis truncatis, modò compressum et frequentèr utrinque aut hinc tantùm ad articulos contractum. Species quædam articulo unico* 1-*spermo, aliæ* 1-3-*phyllæ, aliæ plures pinnatifoliæ prætereà distinctæ fructû cristato et ideò forsàn à genere distrahendæ. Motus in foliolis* HEDYSARI gyrantis *peculiaris.* Juss. loc. cit. 362.

Div. Foliis simplicibus.

H. *latifolium,* fruticosum, (subfulvo-pubescens,) obliquum. Foliis simplicibus rotundatè reniformi-cordatis, subrepandis. Stipulis semicordatis, cuspidatis. Racemis axillaribus, hamato-setosis. Leguminibus 3-5-articulatis, margine inferiori emarginatis. *Roxburgh MSS. in Musæo Banksiano, cum tab. ined. (ex anglico vers.)*

Hedysarum latifolium. *Carey Hort. Bengal.* 57.

Caulis *brevis, lignosus, glabriusculus.* Rami *obliqui, fermè horizontales vel reclinati, ubi teneriores villosi.* Folia *alterna (hic indè licèt rarè in summo ramo sub racemo occurrit horum par oppositum) bifaria, brevi-petiolata, subrotundo-cordata, subtùs tomentosa, supra scabrata, longitudine* 3-4-*unciali vel eò circà, latitudine ferè æquali.* Stipulæ rameæ *semicordatæ, cuspidatæ,* petiolares *subulatæ.* Racemi *axillares et terminales, horizontales, pluriès longiores folio, pilis setaceis hamatis vestiti.* Flores *tripli, parvuli, lætè purpurei, medius serior lateralibus.* Bracteæ *triplæ, triquetræ, acutæ.* Legumina *plana, hamato-setulosa,* 4-5-*articulata margine inferiori profundiùs emarginata.* Roxb. loc. cit. (ex angl.).

The sample here figured was sent by Mr. Lambert from Boyton House, in Wiltshire, and formed part of a plant, the produce of some seed collected in China by Sir George Staunton, during the period he was associated with Lord Amherst in the embassy to the court of that empire. We see no feature suggesting any reason for distinguishing it from the HEDYSARUM *latifolium* of Dr. Roxburgh, by whom it had been cultivated in the Botanic Garden at Calcutta, having been brought by Colonel Hardwicke from

a northern part of Hindoostan, where it was spontaneous. The leaves in some samples, lately received from the Calcutta Garden by Sir Joseph Banks, have a less cordate or indented base than those of others in Mr. Lambert's Herbarium, or indeed than in the base of those in Dr. Roxburgh's figure. Here and there, though rarely, we find a pair of exactly opposite ones, with the stipules connate. Plants of it have formerly flowered with Mr. Lambert, which had been produced from seed out of the Calcutta Garden. The species is not recorded in the Hortus Kewensis.

The following is Dr. Roxburgh's description. "*Stem* "short, ligneous, and pretty smooth. *Branches* oblique, "almost horizontal or reclinate, the tender parts villous. "*Leaves* simple, alternate, bifarious, short-petioled, round- "ishly cordate, somewhat repand, downy underneath, "above scabrous, about three or four inches long, and "nearly of the same breadth. *Stipules* of the petioles "semicordate cuspidate, of the leaves subulate. *Racemes* "axillary and terminal, horizontal, many times longer "than the leaves, clothed with small hooked bristles. "*Flowers* threefold, the middle one late, they are all small "and of a bright purple colour. *Bractes* threefold, trian- "gular, acute. *Legumes* flat, clothed with hooked bristles, "four-five-jointed, and more deeply notched at the under "margin."

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ECHINOPS paniculatus.
Tartarian Globe-thistle.

SYNGENESIA *POLYGAMIA SEGREGATA.*

Nat. ord. CYNAROCEPHALÆ. *Jussieu gen.* 171. *Div. III.* Cynarocephalæ anomalæ. Calyces uni aut pauciflori aggregati.

ECHINOPS. Calyces 1-flori flore flosculoso hermaphrodito, angulati oblongi, squamis numerosis inæqualibus infrà ciliatis imbricati, et extùs basi multisetosi, aggregati in capitulum globosum supra receptaculum commune globosum subnudum, cinctum quandoque squamulis reflexis minimis calycem communem mentientibus. *Stig.* duplex. *Semen* villosum, apice ciliatum, calyce persistente cinctum. *Herbæ, quædam altissimæ; fol. alterna spinosa pinnatifida; capitula sæpè solitaria terminalia.* Juss. loc. cit. 175.

E. *paniculatus,* foliis rugosis, squarroso-pinnatifidis, suprà glabris, infernè glaucis tomentosis; caule ramosissimo. *Jacq. ecl.* 1. 72. *n.* 40. *tab.* 40. *Baumgarten en. stirp. transylv.* 3. 80.

Echinops tauricus. *Willd. enum. suppl.* 62.

Radix *biennis.* Caules *sexpedales, herbacei, plures ex eâdem radice, erecti, infernè crassi, sulcati, pubescentes, purpurascentes, ramosissimi, ramis fastigiatis.* Fol. *alterna, patentia, sessilia, amplexicaulia, inferiora sesquipedalia, superiora sensìm minora, squarroso-pinnatifida, rugosa,* suprà *profundè virentia, pilis raris brevissimis diaphanis obsita, cæterùm glabra, nitida præsertìm juniora et caulina,* infrà *glauca, tomentosa nervis prominentibus albidis pilosis;* laciniis 4 *vel* 5 *in utroque latere, sinuatis, acutis; in foliis caulinis versùs basin latè decurrentibus et tandèm evanescentibus versùs basin, ut demùm appendiculas spinosas* petioli *semipedalis canaliculati referant.* Flores *in capitulis globosis diametro bipollicari.* Anthodium *nullum nisi setæ ex calycibus infimorum flosculorum persistentes ità nuncupentur.* Flosculi *omnes hermaphroditi.* Calyx *viscosum, glaucescens involucro setoso proprio tectum,* 12-14-*phyllum, imbricatum, oblongum foliolis erectis, spathulato-lanceolatis, omnibus longè acuminatis, glaucis, basi fuscescente, apice ciliatis, ciliis plumosis, exterioribus versùs apicem pilis rarioribus capitatis pubescentibus; interioribus glabris.* Corollulæ *tubulosæ, cærulescenti-albæ, glabræ, tubo cylindrico, longitudine involucri, fauce globosâ, limbo cærulescente 5-fido, laciniis linearibus bisulcatis reflexis.* Fil. *laxa, ex fundo faucis orta.* Anth. *cylindrica, pentagona, cærulea, post anthesin pallescens.* Germ. *obversè conicum, pilis adpressis densè villosum, apice ciliis confertis fuscis coronatum;* stylus *post anthesin staminibus longior:* stig. *bifidum, lobis reflexis, longitudine antheræ, basi ciliatis.* Semen *oblongum, glabrum, pappo marginato coronatum.* Recept. *nudum punctatum.* Jacq. loc. cit.

Native of the Crimea, and also of Transylvania. Lately introduced by Mr. Lambert, having been grown in his garden at Boyton House, from seed obtained from the Botanic Establishment at Berlin. The sample from which the drawing was made came off a plant that flowered last

autumn. The species had been cultivated at Vienna in 1805, by Dr. Host, to whom the seed had been sent by M. Marschall of Bieberstein. It is only when the plant grows in perfection that the panicled character of the stem is displayed. Seems to be hardy.

Root biennial. *Stems* six feet high, herbaceous, several from the same rootstock, upright, thick at the lower part, furrowed, pubescent, purplish, full of branches, branches level-topped. *Leaves* alternate, spreading, sessile, stemclasping, lower ones a foot and an half long, upper ones gradually smaller, squarrosely pinnatifid, deep green above and very thinly furred with short transparent hairs, smooth, shining, especially the young and stem ones, *underneath* glaucous tomentose, with white prominent hairy nerves, *lobes* 4 or 5 on each side, sinuated, sharp-pointed, in the stem-leaves broadly decurrent towards the base, ultimately diminishing towards the lower part, till they have the appearance of the spinous appendages of a half foot long channelled petiole. *Flowers* in globular heads of about 2 inches in diameter. *General involucre* none, unless you choose to denominate the persistent bristles belonging to the calyxes of the lower florets such. *Florets* furnished throughout with stamens and pistils. *Calyx* viscous, inclining to glaucous, surrounded by a partial bristly involucre, 12-14-leafletted, imbricate, oblong, *leaflets* upright, spatulately lanceolate, all long-pointed, glaucous, inclining to brown at the base, ciliated at the top, ciliæ or fringe feathery; *outer ones* furred towards the top by thin-set headed hairs, *inner ones* smooth. *Florets* tubular, blueish white, smooth; *tube* cylindrical, the length of the involucre; *faux* globular; *limb* blueish; *segments* linear, two-furrowed, reflected. *Filaments* loose, springing from the bottom of the faux: *anther* cylindrical, pentagonal, blue, almost colourless after the pollen has been evacuated. *Germen* reversedly conical, closely and flat-pressedly villous, crowned at the top by a close brown fringe: *style* after the evacuation of the pollen longer than the stamens: *stigma* bifid; *lobes* reflex, the length of the anther, ciliated or fringed at the base. *Seed* oblong, smooth, with a margined pappus or seed-crown. *Receptacle* naked, punctured.

— Hart del.   Pub. by J. Ridgway & Sons 170. Piccadilly. April. 1 1819   Smith sculp

ORCHIS longibracteata.

Winter Orchis of Sicily.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Jussieu gen.* 64. *Brown prod.* 309. *Div. I. Anthera* adnata subterminalis persistens. *Pollinis massæ* è lobulis angulatis elasticè cohærentibus; basi affixæ. *Brown in Hort. Kew. ed.* 2. 5. 188.

ORCHIS. Suprà vol. 3. *fol.* 202.

O. *longibracteata*: bulbis indivisis; petalis conniventibus; nectarii labio (labello) trifido: laciniâ mediâ exporrectâ bilobâ; bracteis flore longioribus. *Biv. Bernardi sic. pl. cent.* 1. 57. *n.* 66. *tab.* 4.

Orchis myodes liliacea hircina flore rubro porphyrographi fimbriata. *Bonan. t.* 33.

Monorchis myodes liliacea hircina, flore magno rubro porphyrographi. *Cup. Panph.* 1. *t.* 200.

Orchis myodes hyemalis liliacea, hircina, fimbriato flore magno rubro porphyrographi. *Cup. hort. cath.* 157. *et suppl. alt.* 67.

Bulbi *duo subrotundi.* Scapus *teres, subflexuosus, vaginatus foliis ovatis vel oblongo-lanceolatis, striatis, paginâ superiore præcipuè lucidis.* Flores *magni graveolentes in spicâ pyramidali compactâ.* Petala *in galeam conniventia, extùs purpurea nervis viridibus, intùs albo-viridia punctis rubris pulchrè notata: opercula (interiora 2) petalis (exterioribus) angustiora, herbida.* Nectarii labium (labellum) *maculis albis purpureisque variegatum, trifidum; segmento medio productiori, bilobo cum appendiculâ internâ laterali brevissimâ, aliquotiès nullâ; segmentis lateralibus margine externo undulatis.* Cornu (Calcar) *germine trigono intorto brevius.* Columna antherifera *brevis, apice obtusa.* Stigma *obcordatum.* Bracteæ *virides, lanceolatæ, cucullum sive galeam superantes.* Biv. Bernardi loc. cit.

The English botanist is indebted to Mr. Swainson, of Elm Grove, near Liverpool, for the introduction of this fine species. During an official residence in Sicily, the native place of our plant, the leisure time of this gentleman was dedicated to Natural History, and the exploring of the productions of that Island. His pursuits have led to the introduction and cultivation of many new and rare vegetables.

ORCHIS *longibracteata* has been described in a masterly way by M. Bivona Bernardi, a Sicilian naturalist of eminence, and author of two botanical publications of great merit; copies of which have been lately received by Mr. Bohn, Bookseller in Frith Street.

We shall avail ourselves of Mr. Swainson's communication to us by quoting the following passage from his letter

which accompanied the present specimen on the 4th of January last: "ORCHIS *longibracteata* is one of the rarest species " found in Sicily, nor had I ever met with it in six years " residence on that island, until it was pointed out to me " by my friend Bivona Bernardi, growing on a rich soil be- " hind the convent of St. Francesco di Paola, near Pa- " lermo, the only spot he had ever found it on. In its na- " tive place it is the first that flowers among the many little " known species found in Sicily, generally opening its blos- " soms in the beginning of February, the depth of a Medi- " terranean winter. The present plant was not taken into " the greenhouse, from the open air, until after one or two " of its flowers had expanded. This circumstance, as well " as others convince me that we should find the (southern) " ORCHIDEÆ much less difficult to cultivate, were they " treated for the most part in a more hardy manner. Nearly " thirty roots of species belonging to this tribe, brought " three years ago from the Mediterranean, are now growing " in my garden, under a common frame, as vigorously as " in their native climate."

The following description is the version of that in the first "*Centuria sicularum plantarum*," above quoted.

Bulbs two, roundish. *Scape* cylindrical, subflexuose, sheathed by the lower parts of the ovate or oblongly lanceolate *leaves*, which are streaked and shining, especially on the upper side. *Flowers* large, with a rank smell; in a pyramidal closeset spike. *Petals* converging so as to form a casque, rose-purple with green nerves on the outside, whitish green prettily marked with red dots on the inside: the two inner ones narrower than the exterior ones, herbaceous. *Label* variously marked with white and purple, trifid, *middle segment* longer than the others, two-lobed, with an interior very short lateral appendage, sometimes with none; *lateral segments* undulated on the outside at the edge: *spur* shorter than the three-cornered twisted germen. *Column* short, obtuse at the summit. *Bractes* green, lanceolate, overtopping the casque of the corolla.

We had no opportunity of inspecting the flower for description after the drawing was made.

There is an ORCHIS deposited in the Banksian Herbarium, by the title of *foliosa*, collected by Mr. Masson in the Island of Madeira, and which, we have little doubt, is of the same species with the present.

— Hart. del. Pub. by J. Ridgway & Sons. 170 Piccadilly. Apr. 1. 1819 Smith Sc.

MESEMBRYANTHEMUM maximum.

Moon-leaved Fig-marygold.

ICOSANDRIA *PENTAGYNIA.*

Nat. ord. FICOIDEÆ. *Jussieu gen.* 315. *Div. II.* Germen inferum.
MESEMBRYANTHEMUM. *Suprà vol.* 3. *fol.* 260.

Div. VII. Rubicunda, *ramis suffrutescentibus glabris, foliis (divisione primâ exceptâ) compresso-triquetris nudis: apicibus rectis, petalis* (M. edule, M. heteropetalo, *et* M. dilatato *exceptis) rubicundis.*

M. *maximum,* foliis acinaciformi-lunatis pellucido-punctatis subconnatis, caule recto. *Willd. enum.* 1. 539.

Mesembryanthemum maximum. *Haworth mesemb.* 402. *n.* 132. *Ejusd. misc. nat.* 66. *n.* 121. *Ejusd. succ.* 292. *n.* 183. *Hort. Kew. ed.* 2. 3. 233.

Radix *lignosa.* Caulis *lignosus, robustus, strictus, arborem quasi in compendio mentiens, subregulariter ramosus, è majoribus generis.* Rami *patentes, numerosi, subpyramidatè dispositi, robusti, firmi,* juniores *ancipites glauco-virentes confertè foliosi,* seniores *teretiores, lignosi.* Fol. *lunulata, v. compressissimè triquetra, incurvescentia carinâ acutâ ventricosâ subcartilagineo-marginatâ obtusiusculâ, opposita, subamplexicaulia potiùs quàm connata, versus basin plurimùm crassiora præsertìm à parte interiori, majora subbiuncialia, latitudine superiore ferè ½ partis unciæ, laterali subunciali, supernè versùs sensìm in aciem extenuata, glabra, puncticulis minutis semipellucidis irregulariter conspersa, pulvisculo albo canescentia.* (Ex anglico D. Haworth vers.) Flores *(fortè imperfecti, ob frigorem anni tempestatis) semel tantùm vidi, terminales ternati (quinati) parvi.* Pedunculi *angulati* bracteis 2 *magnis foliiformibus instructi.* Cal. *5-fidus laciniis inæqualibus,* 2 *exterioribus (ut sæpiùs in cæteris) majoribus.* Cor. *rubicunda,* petalis *linearibus, numerosis.* Germ. *5-angulatum.* Haworth in misc. nat. ad. loc. cit.

We are obliged to Mr. William Ross, of the Eden Nursery at Stoke Newington, for the sample of the, till now unfigured, species which has afforded the drawing. It was introduced from the Cape of Good Hope by Mr. Masson in 1787; and is one of those that are peculiarly shy in producing bloom with us, though marked in the Hortus Kewensis as blossoming from March to December. The specific title was adopted by Mr. Haworth in allusion to the general size of the plant, not of the flower, which is rather small in proportion.

It belongs to the division that expand their flowers in the forenoon. The following description is taken chiefly from Mr. Haworth's work on this genus.

The largest species hitherto (1794) known. *Root* woody, strong, emitting numerous ramifying fibres. *Stem* strong, firm, upright, woody, pretty regularly branched, more like a little tree. *Branches* spreading, numerous, disposed somewhat in a pyramidal manner, stout, while young ancipitous, glaucous and thickly covered with leaves; when old, more cylindrical and woody. *Leaves* lunulate or very compressedly triangular, incurved with a sharp-edged protuberance, very entire keel, and a slight cartilaginous border, which does not terminate in a point like those of many of the species of this genus, opposite, rather stemclasping than connate, much the thickest towards the base, especially on the inside, the largest about two inches long, almost one inch deep, and about the third of an inch across the broadest part of the upper side, whence it gradually tapers to a very fine edge, smooth, irregularly sprinked with minute semipellucid dots, covered with a white bloom or hoar, like that we see on a fresh-gathered plum. *Flowers* (in the specimen Mr. H. saw, and which he thinks might be imperfect from the cold season they were produced in) terminal, by threes (or rather fives), small. *Peduncles* angular, furnished with two large leaflike *bractes*. *Calyx* 5-cleft, with unequal segments, two of which, as in most other species, are larger than the rest. *Corolla* purple; *petals* linear, numerous. *Germen* five-cornered.

Hart. del.

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Smith sc.

SALVIA hispanica.

Spanish Sage.

DIANDRIA *MONOGYNIA.*

Nat. ord. LABIATÆ. *Jussieu gen.* 110. *Brown prod.* 499. *Sect. I.* Stamina 2 fertilia; v. dum 4 fertilia, antheræ omnium dimidiatæ.

SALVIA. Suprà vol. 4. *fol.* 347.

S. *hispanica*, foliis ovatis serratis, petiolis utrinque mucronatis, spicis imbricatis, bracteis ovatis ciliatis attenuatis. *Vahl enum.* 1. 251.

Salvia hispanica. *Lin. sp. pl. ed.* 2. 1. 37. *Etling. salv. n.* 18. *Willd. sp. pl.* 1. 141. *Hort. Kew.* 1. 43. *ed.* 2. 1. 60.

Salvia, foliis cordato-ovatis serratis rugosis, bracteis sub verticillis florum senis calycibus tridentatis. *Arduin. spec.* 10. *t.* 2.

Caulis *sesquipedalis, obtusè tetragonus, quadrisulcatus, retrorsùm pilosus.* Folia *petiolata, bipollicaria, attenuata, per petiolum parùm decurrentia, acutè serrata, versùs basin integerrima, rarè villosa.* Petioli *utrinque mucrone obtuso.* Spica *tetragona, tripollicaris vel ultrà.* Bracteæ *longitudine calycum.* Calyces *sæpè quinque sub singulâ bracteâ, villosi, canescentes, tridentati, oblongi, ventricosi.* Corolla *pallidè cærulea, calyce parùm longior: galeâ villosâ.* Vahl loc. cit.

Native of Spain and Italy. Cultivated in the Chelsea garden in 1739. An out-doors annual; flowering from June to August.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, Fulham; where the seed had been imported from the Botanic Garden at Madrid.

Stem a foot and a half high, obtusely quadrangular, four-fluted, reversedly furred. *Leaves* ovate, acuminately tapered, sharply serrated, quite entire towards the tapered base, slightly decurrent along the petiole, thinly villous, about two inches long: *petiole* with an obtusely mucronate prominence on each side the base. *Spike* imbricated, 4-cornered, 3 inches long or more: *bractes* the length of the calyxes, ovate, acuminately tapered, ciliated or fringed. *Calyxes* often five within the bosom of a single *bracte*, villous, hoary, three-toothed, oblong, ventricose. *Corolla* light blue, little longer than the calyx; *casque* villous.

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—Hart. del. Pub. by J. Ridgway, & Sons. 170 Piccadilly. Apl. 1.1819. Smith Sc.

SIDA grandifolia.
Large-leaved Sida.

MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ. *Jussieu gen.* 271. *Div. II.* Stamina in tubum corolliferum connata, indefinita. Fructus multicapsularis; capsulæ verticillatæ, in orbem dispositæ aut in unam compactæ.

SIDA. Cal. 5-fidus simplex. *Antheræ* in apice tubi. *Styli* plures (5-30) basi approximati (rarò stylus verè unicus); stigmata totidem. *Capsulæ* totidem 1-loculares 1-3-spermæ 2-valves, in unam conniventes. *Frutices aut herbæ, rarò arbores; flores axillares aut terminales, pedicellis sub calyce quasì articulatis, in articulo solubilibus, observante D. Cavanilles. Ex eodem petala in speciebus 5-10-capsularibus 1-spermis sæpiùs hìnc falcatìm et obliquè productiora, in cæteris non item. Capsulæ in* S. vesicariâ *ejusdem 5-spermæ.* Juss. loc. cit.

Div. Foliis cordatis dentatis, pedunculis multifloris vel racemosis.

S. *grandifolia,* foliis subrotundo-cordatis inæqualitèr dentatis pubescenti-mollibus, pedunculis bi-triflorisque petiolo brevioribus, capsulis acuminatis calyce parùm majoribus, ramis hirtis. *Willd. enum.* 2. 724.

Arbor *viginti-pedalis.* Folia *in juniore arbore semipedalia, in adultâ quadripollicaria.* Capsulæ *circitèr decem subtruncatæ acuminatæ calyce parùm majores hirtæ trispermæ.* Willd. loc. cit.

A species lately introduced by Mr. Lambert, by whom it was raised at Boyton House, from seed ripened in the Botanic Garden at Berlin. It requires to be kept in the hothouse, where it flowers during the winter season. Willdenow, by whom it has been recorded in the Catalogue of the Berlin Garden, had not ascertained from whence it came.

SIDA differs from HIBISCUS in having a single, instead of a double calyx, and a fruit of many capsules, instead of a five-celled capsule. In the synopsis of Persoon we find 122 species, a great proportion of which belong to tropical America and India.

Mr. Brown, in his excellent treatise on the Botany of Congo, has the following remark concerning the natural tribe to which the present genus belongs. "The *Malvaceæ, Ti-* "*liaceæ, Hermanniaceæ, Butneriaceæ,* and *Sterculiaceæ,* "constitute one natural class; of which the orders appear "to me as nearly related as the different sections of *Rosaceæ*

" are to each other. In both these, as well as in several " other cases that might be mentioned, there seems to be a " necessity for the establishment of natural classes, to which " proper names, derived from the orders best known, and " differing perhaps in termination, might be given.

" It is remarkable that the most general character con- " necting the different orders of the class now proposed, " and which may be named from its principal order *Mal-* " *vaceæ*, should be that of the valvular estivation (the " folding previous to expansion) of the Calyx: for several, " at least, of the genera at present referred to *Tiliaceæ*, in " which this character is not found, ought probably, for " other reasons likewise, to be excluded from that order; " and hence perhaps also the *Chlenaceæ*, though nearly re- " lated, are not strictly referable to the class *Malvaceæ*, " from all of whose orders, it must be admitted, they differ " considerably in habit."

Sida *grandifolia* has grown in the Berlin Collection to a tree of twenty feet in height.

Branches covered with a long close fur. *Leaves* roundishly cordate, unevenly denticulate, covered with a soft pubescence, in the young plant about half a foot in length, in the full-grown one about four inches long. *Peduncles* two-three-flowered shorter than the petiole. *Capsules* about 10, subtruncated, long pointed, but little bigger than the calyx, shaggy, three-seeded.

— Hart. del.

Pub. by J. Ridgway & Sons 170 Piccadilly. Apl 1. 1819.

Smith. Sc.

ACACIA lophantha.

Two-spiked Acacia.

POLYGAMIA *MONŒCIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. I.* Corolla regularis. Legumen multiloculare, sæpiùs bivalve, dissepimentis transversis, loculis monospermis. Stamina distincta. *Arbores aut frutices; folia abruptè pinnata.*=MIMOSEÆ. *Brown gen. rem. in Flind. voy.* 2. 551.

ACACIA. Suprà vol. 2. *fol.* 98.

Div. Foliis duplicato-pinnatis, caule inermi, spicis globosis.

A. *lophantha,* inermis, foliis bipinnatis, partialibus novem seu duodecimjugis, propriis subvigintijugis lanceolatis aveniis, glandulâ petiolari, et inter binas terminales partialium, spicis oblongis pedunculatis axillaribus geminis. *Wild. sp. pl.* 4. 1070.

Acacia lophantha. *Hort. Kew. ed.* 2. 5. 468.

Mimosa distachya. *Venten. cels.* 20.

Mimosa elegans. *Andrews's reposit.* 563.

Ramuli *teretes sulcati.* Fol. *bipinnata,* partialibus *septem-novem-seu duodecimjugis,* propriis 15-18-*seu* 24-*jugis lanceolatis acutis glabris aveniis et tantùm costâ mediâ instructis.* Petioli *pubescentes.* Glandula *urceolata depressa ad basin petioli communis et inter paria bina terminalia partialium.* Spicæ *pollicares vel sesqui pollicares oblongæ axillares geminatæ.* Legumen *planum oblongum sinuatum margine incrassatum.* Willd. l. c.

Found on the south-west coast of New Holland by Mr. Brown. Introduced in 1803 by Mr. Peter Good. An ornamental greenhouse shrub, flowering for a considerable time in succession at various seasons of the year.

The drawing was taken in January last at Mr. Knight's nursery, in the King's Road, Little Chelsea.

Branchlets round, fluted. *Leaves* doubly pinnate, *pinnæ* in seven, nine, or twelve pairs; *leaflets* in fifteen, eighteen, or twenty-four pairs, lanceolate, sharp-pointed, smooth, veinless, with only a midrib. *Petioles* furred. *Glands* small urceolated depressed, one at the base of the *common petiole* and between the two terminal pairs of the *partial ones.* *Spikes* from an inch to an inch and a half long or more, oblong, axillary, twin. *Legume* flat, oblong, sinuated, thickened at the edge.

What are termed leaves in this species, are in fact dilated petioles, the true compound leaf being produced

only by the seedling plant. We shall subjoin some extracts from Mr. Brown's highly interesting observations on the natural tribe to which our plant belongs.

" LEGUMINOSÆ. This extensive tribe may be con-
" sidered as a class divisible into at least three orders, to
" which proper names should be given. Of the whole class
" about 2000 species are at present published; and in Terra
" Australis, where this is the most numerous family, consi-
" derably more than 400 species have already been observed.

" One of the three orders of *Leguminosæ*, which is here
" for the first time proposed, may be named *Mimoseæ*. It
" consists of the Linnean Mimosa, recently subdivided by
" Willdenow into five genera, along with Adenanthera and
" Prosopis. This order is sufficiently distinguished from
" both the others by the hypogynous insertion and valvular
" æstivation of its corolla, which being perfectly regular
" differs in this respect also from the greater part of *Lomen-
" taceæ* and from all the *Papilionaceæ*.

" Nearly the whole of the Australian species of the Lin-
" nean genus, Mimosa, belong to the Acacia of Willdenow,
" as it is at present constituted; and about nine tenths of
" the *Acaciæ* to his first division of that genus, described by
" him as having simple leaves, but which is in reality aphyl-
" lous; the dilated foliaceous footstalk performing the func-
" tions of the true compound leaf, which is produced only in
" the seedling plant, or occasionally in the more advanced
" state in particular circumstances, or where plants have
" been injured.

" The great number of species of Acacia having this
" remarkable economy in Terra Australis, forms one of the
" most striking peculiarities of its vegetation.

" The second order, *Lomentaceæ* or *Cæsalpineæ*, com-
" prehends all the genera having perigynous stamina, a
" corolla whose æstivation is not valvular, and which though
" generally irregular is never papilionaceous. To these cha-
" racters may be added the straight embryo, in which they
" agree with the *Mimoseæ*, but differ from all the *Papilio-
" naceæ*, except Arachis and Cercis.

" The third order, *Papilionaceæ*, which comprehends
" about three fourths of the whole class at present known,

" includes also nearly the same proportion of the Australian " *Leguminosæ*.

" *Papilionaceæ* admit of subdivision into several natural " sections, but in Terra Australis they may be divided al- " most equally, and without violence to natural affinities, " into those with connected and those with distinct stamina.

" The decandrous part of the whole order bears a very " small proportion to the diadelphous, which in Persoon's " synopsis is to the former as nearly 30 to 1, while in Terra " Australis, as I have already stated, the two tribes are " nearly equal.

" This remarkably increased proportion of Decandrous " Papilionaceous plants, forms another peculiarity in the " vegetation of New Holland, where their maximum exists in " the principal parallel. They are not so generally spread " over the whole of Terra Australis, as the leafless *Acaciæ*; " for although they extend to the southern extremity of Van " Diemen's Island, they are even there less abundant, and " very few species have been observed within the tropic. " Papilionaceous plants with distinct stamina do not in fact " form a very natural subdivision of the whole order, though " those of New Holland, with perhaps one or two excep- " tions, may be considered as such: this Australian portion, " however, forms nearly three fourths of the whole section, " at present known: the remaining part, consisting of " genera, most of which are very different, both from " each other and from those of Terra Australis, are found " at the Cape of Good Hope, in æquinoctial and north " Africa, in the different regions of America, in New Zea- " land, in India, very sparingly in North Asia, and lastly " in the South of Europe, where, however, only two species " have been observed, namely, ANAGYRIS *fœtida* and CERCIS " *Siliquastrum*; but the latter having a straight embryo " and a habit approaching to that of BAUHINIA, rather be- " longs to *Lomentaceæ*."

Hart. del. Pub by. J. Ridgway & Sons. 170 Piccadilly. April. 1. 1819. Smith. Sc.

ACACIA longifolia.

Long-leaved Acacia.

POLYGAMIA *MONŒCIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. I.* Corolla regularis. Legumen multiloculare, sæpiùs bivalve, dissepimentis transversis, loculis monospermis. Stamina distincta. *Arbores aut frutices; folia abruptè pinnata.*=MIMOSEÆ. *Brown gen. rem. in Flind. voy.* 2. 551.

ACACIA. *Suprà vol.* 2. *fol.* 98.

Div. Foliis simplicibus.

A. *longifolia*, inermis; foliis lineari-lanceolatis utrinque angustatis trinerviis striatis, spicis axillaribus geminatis cylindraceis. *Willd. sp. pl.* 4. 1052.

Acacia longifolia. *Andrews's reposit.* 207. *Venten. malmais.* 62. *Hort. Kew. ed.* 2. 5. 461. *Willd. enum.* 2. 1050. *Curtis's magaz.* 1827.

Frutex *sempervirens excelsior.* Caulis *erectus, teres, ramosus, foliosus, glaber, fusco-cinerascens:* rami *axillares, sparsi, stricti, angulosi.* Fol. *sparsa, approximata, patentia, obliqua, infernè versùs attenuata, apice obtusa, venosula nervis* 3 *varicosioribus, glabra, plana, persistentia, haud saturatè virentia:* petioli *brevissimi, articulati, articulo corrugatè protuberantes, decurrentes.* Spicæ *instar amentorum, sæpiùs geminæ, ferm̀eque oppositæ, axillares, plurimùm breviores folio, patentes, sessiles, cylindricæ:* pedunculi *per omnem longitudinem floriferi, bracteati.* Flores *sessiles, confertiores, inodori, citrini, plerumque hermaphroditi, modò masculi.* Bracteæ *simplices, sigillatim pede spicæ florisque uniuscujusque positæ, ovales, concavæ, membranosæ, subrubentes, caducæ; spicarum duplò longiores florum.* Cal. *campanulatus, membranosus, pallidè lutescens, 5-dentatus, triplo brevior corollâ.* Pet. 5, *imo calyci affixa, ovalia, acuta, erecto-recurva.* Fil. *numerosa, fundo calycis sub petalis inserta, basi in annulum connata, indè libera, globoso-divergentia, capillacea, petalis quibus duplò longiora concolora:* anth. *erectæ, rotundiusculæ, citrinæ, minimæ, bilobæ.* Germ. *liberum, albicans, ovale, pubescens:* stylus *lateralis, stamina exsuperans, rectus, capillaceus:* stig. *simplex, obtusum.*

When cultivated in the border of the conservatory, this plant forms a fine tall shrub; and is covered from February to May with blossom nearly throughout the whole of the branches. Introduced by Mr. Ord in 1792. Native of New South Wales. There are several presumed varieties, differing with longer and shorter, broader and narrower, paler and deeper green leaves.

The drawing was taken from a specimen from Mr. Herbert's collection at Spofforth.

Evergreen. *Stem* upright, round, branching, leafy, smooth, of a cinereous brown: *branches* axillary, scattered,

stiff, straight, angular. *Leaves* scattered, near, spreading, oblique, tapered downwards, obtuse at the point, veiny with three raised nerves, smooth, persistent, not of a very deep green colour: *petioles* very short, jointed, protuberant at the joint and wrinkled, decurrent. *Spikes* resembling catkins, generally in pairs, much shorter than the leaf, spreading, sessile, cylindrical: *peduncles* flowerbearing their whole length, bracteate. *Flowers* sessile, close, scentless, lemon-coloured, chiefly with both stamens and pistils, sometimes with only stamens. *Bractes* simple, one at the base of each peduncle and of each flower, oval, concave, membranous, reddish, caducous, those of the spikes twice the length of those of the flowers. *Calyx* campanulate, membranous, pale yellow, five-toothed, three times shorter than the corolla. *Petals* five, affixed to the lowermost part of the calyx, oval, acute, upright, recurved. *Filaments* numerous, inserted at the bottom of the calyx below the petals, grown together at the base into a ring, free and distinct all the way, from thence diverging into globular tufts, capillary, twice the length of the petals and of the same colour: *anthers* roundish, upright, lemon-coloured, very small, two-lobed. *Germen* detached, whitish, oval, pubescent: *style* growing on one side of it, overtopping the stamens, straight, capillary: *stigma* a simple obtuse point.

Both the above descriptions are principally collected from the French in M. Ventenat's work.

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MELASTOMA lævigata.

Smooth-leaved Melastoma.

DECANDRIA *MONOGYNIA.*

Nat. ord. MELASTOMÆ (*recentiùs* MELASTOMACEÆ). *Jussieu gen.* 328. *Div. II.*

MELASTOMA. *Cal.* 1-phyllus, extùs nudus, 4-5-6-dentatus, fructum vestiens. *Pet.* 4-5-6. *Stam.* 8-10-12, omninò libera. *Germ.* liberum. *Bacca* seu *capsula* molli pulpâ farcta, 4-5-locularis apice dehiscens. *Sem.* numerosa, in pulpâ nidulantia. *Ventenat in mem. de l'Institut. sc. phys.* 1807. 8. 11.

M. *lævigata*, foliis integerrimis lævigatis quinquenerviis ovato-oblongis læviusculis acuminatis: margine lævibus. *Lin. sp. pl. ed.* 2. 559.

Melastoma lævigata. *Swartz obs.* 176. *Willd. sp. pl.* 2. 593. *Sweet hort. suburb. lond.* 94.

Melastoma fruticosa minor, foliis tenuibus, ovatis, racemis terminalibus. *Browne jam.* 212.

Grossularia fructû non spinoso, malabathri folio oblongo, floribus herbaceis racemosis, fructû nigro. *Sloane cat.* 165. *hist.* 2. 140.

Frutex *humanæ altitudinis, erectus.* Caulis *ramosus, lævis.* Rami *erecti, tereti-angulati, læves.* Folia *petiolata, decussato-opposita, lanceolato-ovata, acuminata, integra, 5-nervia, nervosa, venosa, utrinque glabra, tenuiora, interdùm subtùs rugosiuscula, subnitida, saturatè viridia.* Racemi *terminales, compositi, erecti, paniculati,* ramis *oppositis decussatis,* ramulis *itidem oppositis;* floribus *confertis, breviter pedicellatis, albis, parvis.* Cal. *superus, 5-dentatus:* dentes *obtusi, breves.* Petala 5, *infra dentes inserta, subsessilia, subrotunda, integra.* Fil. 10 *calyci infra petala adfixa, corollâ longiora, geniculata;* antheræ *erectæ, apice perforatæ.* Germ. *subrotundum:* stylus *erectus, staminibus longior:* stigma *crassiusculum, truncatum, concavum.* Bacca *subrotunda, primùm albida, dein cærulea et tandem atra evadit, 5-locularis, succo atrocæruleo.* Swartz loc. cit.

Said by Swartz to be a common plant in Jamaica. It is however rare in our collections, into which, according to *Sweet's Hortus Suburbanus Londinensis,* it was not introduced till 1815. We find no mention of it in the Hortus Kewensis. The sample from which the drawing has been taken, was kindly sent by Sir Abraham Hume from Wormleybury, where it flowered in the hothouse during the late winter months.

Mr. Brown, in his valuable notes on the Congo Herbarium, has the following interesting notice concerning the natural order to which our plant belongs.

" In a considerable part of the species published in the " monograph of Rhexia, by M. Bonpland, and in some " other genera of the *Melastomaceæ*, the manner in which " the germen is connected with the tube of the calyx is pe- " culiar. This cohesion, instead of extending uniformly " over the whole surface, is limited to 10 longitudinal equi- " distant lines or membranous processes, apparently origin- " ating from the surface of the germen; the interstices, " which are tubular, and gradually narrowing towards the " base, being entirely free.

" The function of these tubular interstices is as remark- " able as their existence.

" In *Melastomaceæ*, before the expansion of the corolla, " the tops of the filaments are inflected, and the antheræ are " pendulous, and parallel to the lower or erect portion of " the filament; their tips reaching either to the line of com- " plete cohesion between the calyx and germen, where that " exists; or, where this cohesion is partial, and such as I " have now described, being lodged in the tubular inter- " stices; the points extending to the base of the germen. " From these sheaths, to which they are exactly adapted, " the antheræ seem to be disengaged in consequence of the " unequal growth of the different parts of the filament; the " inflected portion ceasing to increase in length at an early " period, while that below the curvature continues to elon- " gate considerably until the extrication is complete, when " expansion takes place.

" It is singular that this mode of cohesion between the ger- " men and the calyx in certain genera of *Melastomaceæ*, and " the equally remarkable æstivation of the antheræ accom- " panying it, should have been universally overlooked, espe- " cially in the late monograph of M. Bonpland; as both the " structure and economy certainly exist in some, and proba- " bly in the greater part of the plants which that author has " figured and described as belonging to Rhexia."

Swartz describes the present shrub as growing, on its native spot, to the height of a man. *Stem* upright, branched, smooth; *branches* upright, cylindrically angular, smooth. *Leaves* petioled, decussatedly opposite, lanceolately ovate, acuminate or long-pointed, entire, five-nerved, veined, smooth on both sides, thinner than usual in the genus, sometimes slightly wrinkled at the under side, somewhat shining, of a deep full green colour. *Racemes* terminal, compound, upright, decussately panicled.

— Hart del. Pub by J. Ridgway & Sons 170 Piccadilly May 1 1819 Smith Sc.

BEGONIA acuminata.
Pointed-leaved Begonia.

MONŒCIA *POLYANDRIA.*

Nat. ord. Plantæ incertæ sedis. Polypetalæ germine infero. *Jussieu gen.* 436.

BEGONIACEÆ. *Bonpland nav. & malm.* 151.

BEGONIA. Suprà vol. 4. *fol.* 284.

B. *acuminata,* caulescens; foliis hispidis semicordatis acuminatis inæqualitèr dentatis, capsulæ *alâ* maximâ obtusangulâ, reliquis acutangulis. *Dryander in trans. linn. soc.* 1. 166. *t.* 14. *fig.* 5, 6.

Begonia acuminata. *Willd. sp. pl.* 4. 417. *Hort. Kew. ed.* 2. 5. 284.

Floris masculi *petala quatuor, quorum duo opposita minora. Floris* fœminei *petala quinque, quorum duo minora. Ad basin germinis bracteæ duæ, argutè serratæ, germine dimidio breviores.* Dryand. l. c.

Native of Jamaica. Introduced by Sir Joseph Banks in 1790. Requires to be kept in the hothouse, where it flowers during the winter months.

A shrub. The staminiferous and pistilliferous flowers are distinct, as is usual in this genus. The former have four petals, of which two opposite ones are smaller than the other two. The latter have five petals, of which two are smaller. Two sharply serrate *bractes* are placed at the base of the germen, and are twice shorter than that.

We had no opportunity of inspecting the inflorescence while fresh.

The drawing was made at the nursery of Mr. Jenkins in the Regent's Park.

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MESPILUS japonica.

Japan Mespilus, or Loquat.

ICOSANDRIA *PENTAGYNIA.*

Nat. ord. ROSACEÆ. *Jussieu gen.* 334. *Div. I.* Germen simplex inferum, polystylum. Pomum calycino limbo umbilicatum, multiloculare. *Arbores aut frutices.* POMACEÆ.

MESPILUS. *Cal.* 5-fidus. *Pet.* 5. *Stam.* 20. *Styli* 2-5. *Pomum* sphæriceum 2-5-spermum seminibus osseis. *Folia simplicia, indivisa aut lobata, pedunculi sæpiùs multiflori, corymbosi terminales et interdùm solitarii axillares. Flos* M. germanicæ *terminalis sessilis ut in* (PYRO) Cydoniâ. *Juss. l. c.* 335.

M. *japonica*, inermis; foliis obovatis apice serratis, subtùs tomentosis, racemis paniculatis terminalibus. *Willd. sp. pl.* 2. 1010.

Mespilus japonica. *Thunb. jap.* 206. *Icon Kæmpfer. t.* 18. *Hort. Kew. ed.* 2. 3. 205. *Venten. malmais.* 19.

Bywa. *Kæmpf. amæn.* 800.

Caulis *cylindricus, ramosus, cortice cinereo-fuscescente rimato:* rami *infernè nudiusculi, subcicatrizati:* ramuli *sparsi, proximi, patentes, ferrugineo-tomentosi.* Fol. *magna, sparsa, approximata, recurvo-patentia, summa sub-rosaceo-disposita, petiolata, stipulata, ovali-oblonga, acuminata, supernè versùs acutè et distantiùs dentata, infernè versùs attenuata margine integro reflexo nervo medio utrinque ramoso subtùs prominente, suprà glabra, subtùs tomento ferrugineo-cinerascente obtecta:* petiolus *crassus, brevissimus:* stipulæ 2, *petiolo æquales, ovales, acuminatæ, pubescentes.* Panicula *terminalis, brevis, bracteata,* spiculis *alternis, horizontalibus, bracteatis, ferrugineo-tomentosis:* flores *sessiles, confertiusculi, bracteati, albi,* CRATÆGI Oxyacanthi *majores, odori.* Bracteæ *ovales, acutæ, concavæ, extùs ferrugineo-tomentosæ, paniculatum fasciculatæ, spicularum horizontales solitariæ, florum trinæ, calyci appressæ.* Cal. *crassus campanulatus, dimidio brevior corollâ, infernè ferrugineo-pubescens, germini adnatus, supernè viridis glaber, stellato-patens.* Pet. *rosaceo-patentia, obovata, unguiculata, margine crenulata, intùs striata villosa.* Germ. *hirsutum.* Bacca v. Pomum *flavum, subtomentosum pulposum,* 1-5-*loculare,* 1-5-*spermum.*

We are told by Thunberg that this is a very common tree in Japan, where it grows to a vast size, and bears a fruit which is much esteemed. With us it was introduced by Sir Joseph Banks in 1787. In France it was received from Canton in 1784. It will live here in the open air when planted against a warm wall; but we have never seen it in such perfection as in the form of standard, in the border of a spacious conservatory. Flowers in October and November, and ripens the fruit about May or June. We have been enabled to give a representation of the fruit by the kindness of Sir Joseph Banks, who furnished us with a drawing for that

purpose. This has been brought to perfection in our country, at Lord Bagot's, where, we are told, it has been used in the dessert, and much liked for its peculiar but agreeable subacid flavour. Mr. Abel, who had eaten it in China, while in the suite of Lord Amherst, praises it as a delicacy. The drawing of the flowering branch was taken at Colonel Ansley's, at Otto House, North End. The foliage is large and very ornamental.

Stem round, branching, with a cinereously brown rimose or cracked bark: *branches* rather bare of leaves at their lower part, and somewhat scarred: *branchlets* scattered, near, spreading, covered with a rusty fur. *Leaves* large, scattered, near, recurvedly spreading, forming at the ends of the branches a kind of rose, petioled, stipulate, oblong-oval, long pointed, sharply and widishly dentate at the upper part, tapered downwards with an entire reflex margin, smooth at the upper surface, and covered with a cinereously rusty fur at the under, midrib with nerves branching from both its sides: *petiole* thick short: *stipules* 2, the length of the petiole, oval, longpointed, furred. *Panicle* terminal, short, bracteate, with alternate horizontal bracteate rusty-furred *spikelets: flowers* sessile, closish, bracteate, white, larger than those of the Hawthorn, odorous. *Bractes* oval, sharp-pointed, concave, with a ferruginous fur on the outside; those of the panicle fascicled, of the spikelets solitary and horizontal, of the flowers in threes and close-pressed to the calyx. *Calyx* thick, campanulate, half the length of the corolla, ferruginously furred below, adnate to the germen, above green smooth and stellately spreading. *Petals* rosaceously expanded, obovate, unguiculate, crenulated at the edge, striate on the inside and villous. *Germen* shaggily furred. The fruit is a yellow apple, with from one to five one-seeded cells.

J. Curt del. Pub. by J. Ridgway 170 Piccadilly May 1. 1819 Smith sc

DIOSMA ciliata.

Fringed-leaved Diosma.

PENTANDRIA *MONOGYNIA.*

Nat. ord. RUTACEÆ. *Jussieu gen.* 296. *Div. III.* Genera Rutaceis affinia.

DIOSMEÆ. *Brown gen. rem. in append. to Flind. voy.* 2. 545.

DIOSMA. *Cal.* profundè 5-fidus persistens, basi intùs vestitus disco (hypogyno?) ad limbum 5-crenato aut in 5 squamulas producto. Pet. 5, sessilia, sæpè marcescentia, sub disco inserta et ejusdem crenis aut squamulis opposita. *Stam.* 5, ibidèm inserta, petalis alterna. *Germ.* disco infrà cinctum; *stylus* 1; *stig.* capitatum. *Fructus* 3-5-capsularis, capsulis compressis conniventibus oblongis, intùs dehiscentibus, fœtis arillo conformi cartilagineo similitèr dehiscente, mono aut polyspermo; *sem.* nitida. *Frutices ericoidei; folia opposita aut sparsa, sæpè conferta et linearia, interdùm subtùs margine punctata; flores corymbosi aut capitato-terminales.* Calyces *quorundam punctato-glandulosi.* Juss. loc. cit. 298.

Div. Agathosma. *Filamentis alternis sterilibus cochleari-petaliformibus.*

D. *ciliata,* foliis lanceolatis carinatis ciliatis, umbellis terminalibus. *Willd. sp. pl.* 1. 1135.

Diosma ciliata. *Lin. sp. pl. ed.* 2. 1. 287. *Berg. cap.* 66. *Thunb. prod.* 43. *Hort. Kew.* 1. 275. *ed.* 2. 2. 30.

Hartogia ciliaris. *Lin. syst. nat. ed.* 12. 2. 625.

Rami *foliosi, teretes, fulviùs-subhirsuti, erecti:* ramuli *plurimi, summitate et medio ramorum congregati, sparsi, axillares, diminuto-foliosi, filiformes, graciles, ascendentes, simplices, duplo longiores foliis rameis v. ultrà, apice umbelliferi.* Fol. *numerosa, sparsa, divaricata, lanceolata, glanduloso-punctata, margine et nervo medio subtùs hirto-ciliata, suprà glabra,* $\frac{1}{4}$ *unciæ circitèr longa,* 4*plo vel ultrà angustiora.* Umbellæ *multi-(sub*12-*)-floræ, convexæ:* pedunculi *capillacei, rubentes, æquilongi,* $\frac{1}{2}$ *unciæ circitèr longi, pilosiusculi, ebracteati.* Flores *odorem herbaceo-resinosum spirantes, parvuli, albi, erecti.* Cal. *persistens, crassiusculus, albido-virens, turbinato-campanulatus, albo-punctatus, segmentis subulatis, erectis, ciliatis.* Pet. *turbinato-patentia, filamentis fertilibus alterna, spathulato-oblonga, duplo longiora calyce.* Fil. 5 sterilia, *petaloda, cochleariformi-ligulata, angusta, alba, infernè pilosa:* 5 fertilia, *filiformia, successivè procrescentia, infernè pilosa, erecto-patentia.* Germ. *disco glanduloso crasso immersum, viride, apice hirsutum, obovatum, compressum (in nostro specimine) biloculare, bicorne, cornubus erectis glanduloso-punctatis:* stylus *setaceus, persistens, albus, glaber.*

The genus DIOSMA has been divided into four by Willdenow, in his Catalogue of the Berlin Garden. Our plant would belong to the AGATHOSMA of these distinguished from DIOSMA in having ten petals instead of five, the five alternate ones being however, in fact, sterile filaments, not petals as they are termed by him.

We know of no figure of this species; although cultivated in our collections ever since 1774, when it was introduced by Mr. Masson from the Cape of Good Hope. Willdenow has made some confusion in respect to synonymy, between this and the *pubescens* of Thunberg. That our plant belongs to the synonymy above cited, we have satisfied ourselves by the inspection of the specimen in the Banksian Herbarium from Kew Gardens, which has been collated with the prototype of the species in the Linnean Herbarium. The drawing was made from a sample in Mr. Creswell's collection, near Battersea.

A branching heathlike shrub: *branches* leafy, round, tawnily and rather shaggily furred, upright; *branchlets* many, congregated at the top and about the middle of the branches, scattered, axillary, filiform, leafy, slender, simple, ascending, twice the length of the leaves of the branches or more, terminally umbelliferous. *Leaves* numerous, scattered, divaricate, lanceolate, glandularly dotted, roughly ciliated at the margin and underneath at the midrib, smooth at the upper surface, about two thirds of an inch long, 4 times narrower or more. *Umbels* many-(about 12-)flowered, convex: *peduncles* capillary, red, about the third of an inch in length, slightly haired, bracteless. *Flowers* with a kind of herbaceo-resinous smell, small, white, upright. *Calyx* persistent, thickish, white and green, turbinately campanulate, glandular dots white; *segments* subulate, upright, ciliate. *Petals* turbinately spreading, alternate with the five fertile filaments, spatulately oblong, twice the length of the calyx. *Filaments:* 5 barren, petal-like, ligulate, narrow, concave at the top, white, furred at the lower part: 5 *fertile*, filiform, growing out to their full length in succession, furred at the lower part, uprightly spreading. *Germen* imbedded in a thick glandular stand, green, shaggy at the top, obovate, compressed, (in our sample) bilocular, two-horned, horns erect with glandular dots: *style* setaceous or bristle-shaped, persistent, white, smooth.

A greenhouse plant. Flowers very early in the spring. Requires the treatment of the Cape Heaths; and is easily propagated by cuttings.

J. Hart del. Pub by J. Ridgway. 170 Piccadilly May 1 1819 Smith sc

ORCHIS variegata.
Pointed-petalled Orchis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Jussieu gen.* 64. *Brown prod.* 1. 309. *Div. I. Anthera* adnata subterminalis persistens. *Pollinis massæ* è lobulis angulatis elasticè cohærentibus; basi affixæ. *Brown in Hort. Kew. ed.* 2. 5. 188.
ORCHIS. Suprà vol. 3. *fol.* 202.

O. *variegata*, bulbis subrotundis, caule folioso; labello tripartito lævi, lobis apice dentatis, medio majori emarginato cum mucronulo interjecto; cornû bracteisque germine brevioribus. *Biv. Bern. sic. pl. cent.* 2. 44. *n.* 60.

Orchis variegata. *Allion. pedem. n.* 1828. *D'Asso flor. arag.* 129. *n.* 888. *Jacq. ic. rar.* 3. *t.* 599. *Coll.* 2. 267. *Swartz in Schrader's neues journ. fur die bot.* 1. 15. *Willd. sp. pl.* 4. 21. *Bertol. pl. genuen.* 119.

Orchis acuminata. *Desfont. atl.* 2. 318. *t.* 247. *Swartz in Schrader's neues journ. fur die bot.* 1. 14. *Willd. sp. pl.* 4. 17. *Curtis's magaz.* 1932.

Orchis militaris. γ. *Lin. sp. pl. ed.* 2. 2. 1334.

Orchis radicibus subrotundis, spicâ brevissimâ, labello brevitèr 4-fido circumserrato punctato. *Hall. helv. n.* 1275. *t.* 30.

Orchis militaris pratensis elatior, floribus variegatis. *Segu. veron.* 2. 123. *t.* 15. *fig.* 3.

Orchis militaris. *Riv. hex. t.* 15.

Orchis militaris minor et minima Rivini. *Rupp. jen.* 279. *cum tab.*

Orchis latifolia hiante cucullo minor. *Vaill. paris. t.* 31. *figg.* 22, 23, 24.

Orchis seu Cynosorchis galeata, purpurea leucostincta, sponsam ornatam effigiens. *Bonan. t.* 35. *Cup. hort. cath. suppl. alt.* 68. *Panphyt.* 2. *t.* 165.

Rad. *didymo-tuberosa, fuscescens, tuberibus ovali-oblongis.* Fol. *subseptena, plurifaria, erecto-patentia, subglauco-v. potiùs cinereo-virentia, opaca, 3-5-uncialia, rariùs unciam latitudine exsuperantia modò submaculata, laminâ lanceolato-oblongâ acutâ striatâ;* interiora *longiora, proliziùs vaginantia.* Scapus *spithamæus, teres, sulcis striatus, pallidè virens.* Spica florum *curta cylindrica conferta patens,* seminum *elongata laxa appressa.* Flores *mediocres, remissiùs odori, dilutiùs incarnati, nutantes,* ⅓ *unciæ vel circà transversi.* Bracteæ *albidæ v. nunc coloratæ, membranosæ, lanceolato-acuminatæ, germini sublongiori appressæ.* Germ. *sessile, tortum, pallido-virens, tereti-angulare, vix longius petalis.* Cor. *nutans, semiringens:* pet. 5 *galeato-conniventia, infernè fulvo-viridia, supernè carneo-albida, sanguineo-striata, lanceolata, cuspidatìm acuminata:* 3 exteriora *æquilonga; lateralia inæquilatera obliquo-assurgentia, striis* 4 *incompletè percursa; medium rectum unistriatum:* 2 interiora *opposita, inclusa, plurimùm minora, linearia, acuta, unistriata.* Labellum *propendens, vix longius petalis, oblato-subrotundum, carneo-albicans, micans, laxiùs sanguineo-punctatum, glabrum, denticulato-erosum, profundè trilobum, brevitèr unguiculatum;* lobi *laterales breviores cuneato-oblongi margine summo obliqui, medius latior obcordatus corniculo v. mucrone minuto in fundo emarginaturæ:* calcar *pallidum, descendens, germine cui parallelum brevius, paululùm suprà basin dilatatum, acumine obtusulo.* Columna *duplo*

brevior petalis v. ultrà, infernè dilatata, alba: cucullus *sanguineus, terminalis, erectus anticè retrorsùm obliquatus,* thecis *sulco profundo glandulam albam intergerinam incompletam infernè comprehendente distinctis:* glandula antherifera *obliquato-protuberans obtusa:* pollinis massæ *clavâ indivisâ brevi æruginéâ, stipite longo flavo lucido.* Stigma *areola didyma antica madida purpurascens parieti interiori cavitatis filamenti v. columnæ partis inferioris sub glandulâ antheriferâ adnata.*

Another of the species of this interesting genus which have been introduced into our collections by Mr. Swainson, of Elm Grove, Liverpool. It was found by that gentleman growing plentifully on the mountains near Palermo, particularly on those of Capreto and Monreale, where it flowers in the spring. That it is the Orchis *variegata* of his friend Bivona Bernardi, Mr. Swainson tells us he can have no doubt, that he has scarcely any of its being the O. *acuminata* of Desfontaines; but not having seen the figure in Jacquin's works, he was less able to satisfy himself of its being also the plant of that author. We have carefully reviewed the synonymy adduced above, and are convinced that the whole belongs to this species; which extends itself widely over the South of Europe, and is known to reach the Coast of Barbary. It comes the nearest to the Orchis *militaris,* of this country, of any other species we are aware of; and was deemed a variety of that by Linnæus; but afterwards properly distinguished from it by Allioni.

Root tuberous, twin, tubers oval, oblong, brownish. *Leaves* about 7, multifariously disposed, uprightly spreading, of a dullish glaucous or rather cinereous green, sometimes marked with a few irregularly disposed spots, opaque, 3-5 inches long, seldom exceeding an inch in breadth, sometimes with a few spots, blade lanceolately oblong, sharp-pointed, streaked: *inner ones* longest, and sheathing the scape to a greater height. *Scape* 6 or 7 inches high, round, fluted, pale green. *Spike in flower* short close cylindrical spreading, *in seed* elongated distant adpressed. *Flowers* of a middling size, slightly scented, very palely flesh-coloured, nutant, about one third of an inch in diameter. *Bractes* white, sometimes coloured, membranous, lanceolately subulate, pressed close to the germen, which is rather longer. *Germen* sessile, twisted, pale green, round, angular, scarcely longer than the petals. *Corolla* nutant, semiringent: *petals* 5, converging into a casque, at the lower part of a tawny green, at the upper of a rosy-white, striped with deep purple,

lanceolate, cuspidately long-pointed: 3 *outer ones* of the same length; side ones uneven-sided, erecting themselves obliquely, marked with 4 incomplete stripes, middle one straight, one-striped: 2 *inner ones* facing each other, enclosed, much smaller, linear, pointed, one-striped. *Label* hanging forwards, scarcely longer than the petals, oblately roundish, rosy white, glittering, loosely spotted with purple, smooth, denticulately eroded round the margin, deeply three-lobed, shortly unguiculate; side lobes cuneately oblong slanted at the top, middle one broader, obcordate, with a minute cornicle or mucro at the bottom of the notch: *spur* pale coloured, pointing downwards, shorter than the germen with which it is parallel, bluntish at the end, a little dilated below the tip. *Column* twice shorter than the petals or more, dilated at the lower part and white; *headpiece* or *cucullus* deep purple-red upright slanting backwards in front, *cists* parted by a wide furrow which contains the white glandular incomplete partition in its lower portion; *antheriferous gland* slanting and protuberant obtuse: *pollen masses* with a short copperas-green head and a longer tawny yellow shining stalk. *Stigma* two-lobed, shining, humid, purplish, affixed to the front of the interior wall of the cavity in the lower part of the column or filament underneath the antheriferous gland.

Hart. del. Pub. by J. Ridgway. 170 Piccadilly. May 1. 1819. Smith. Sc.

SPARTIUM ferox.

Barbary Broom.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. V.* Cor. irregularis papilionacea. Stam. 10 diadelpha. Leg. 1-loc. 2-valv. *Frutices aut herbæ; fol. simplicia aut ternata aut rariùs digitata; stipulæ nunc subnullæ, nunc conspicuæ imo petiolo adnatæ aut ab eodem distinctæ.*=PAPILIONACEÆ. Brown gen. rem. in Flind. voy. 2. 552.

SPARTIUM. Cal. deorsùm productus. *Carina* quibusdam pendula. *Filam.* germini adhærentia. *Stig.* longitudinale, suprà villosum. *Legum.* oblongum, mono-aut polyspermum. *Persoon syn.* 2. 286.

Div. Foliis ternatis.

S. *ferox,* foliis ternatis simplicibusque oblongis mucronatis, racemo terminali, ramis striatis teretibus spinescentibus. *Willd. sp. pl.* 3. 934.

Spartium ferox. *Desfont. atl.* 2. 136. *t.* 182. *Poiret voy. en barb.* 2. 206. *Hort. Kew. ed.* 2. 4. 257.

Spartium heterophyllum. *L'Herit. stirp.* 183.

Cytisus foliis oblongis sessilibus glabris, siliquis compressis incanis. *Shaw specim. n.* 194.

Caulis *fruticosus,* 9-15 *decimet. altus, ramosus, erectus.* Rami *numerosi, striati.* Spinæ *validæ, longæ, striatæ, floriferæ.* Fol. *glabra aut brevissimè villosa, mucronata,* superiora *simplicia, lanceolata et obovata, brevissimè petiolata* 6-9 *millem. longa,* 2-4 *lata;* inferiora *ternata obovata.* Flores *numerosi, solitarii, axillares, breviter pedicellati, in racemos* 2-5 *centim. longos dispositi.* Rachis *pubescens.* Cal. *tripartitus; laciniis acutis, inferiore paululùm longiore, trifidâ.* Cor. *lutea, magnitudine* GENISTÆ spinosæ *Lin., glabra.* Germ. *argenteum.* Legumen *subarcuatum, compressum, acuminatum,* 2 *centim. longum,* 4 *millem. latum, torulosum, sericeum, incanum villis adpressis densis brevissimis,* 8-*ad* 10- *spermum.* Desf. l. c.

Native of Barbary. Introduced about the year 1800. With us a hardy greenhouse shrub, flowering in the spring. The drawing was taken at the nursery of Messrs. Whitley, Brames, and Milne, at Fulham. It differs from SPARTIUM *spinosum* by having the upper leaves simple, and not ternate as there.

An upright branching shrub: branches numerous, fluted. *Spines* strong, long, fluted, flowerbearing. *Leaves* smooth or furred with a very short nap, mucronate; *upper ones* simple, lanceolate and obovate, most shortly petioled; *lower ones* ternate, obovate. *Flowers* many, solitary, axillary, shortly stalked, disposed in racemes. *Rachis* or *general*

stalk furred. *Calyx* three-parted, segments sharp-pointed, lower one a little the longest, trifid. *Corolla* yellow, smooth. *Germen* of a silvery white. *Legume* or *pod* somewhat bowed, compressed, long-pointed, torulose or marked with protuberances, silkily furred, grey with a very short dense close-pressed nap, from 8- to 10-seeded.

Hart del.   Smith sc.

Pub. by J. Ridgway 170 Piccadilly May 1 1819

DIOSMA hirta.
Purple Diosma.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Rutaceæ. *Jussieu gen.* 269. *Div. III.* Genera Rutaceis affinia.

Diosmeæ. *Brown gen. rem. in app. to Flind. voy.* 2. 545.

DIOSMA. Suprà fol. 366.

Div. Agathosma. *Filamentis alternis sterilibus cochleari-petaliformibus.*

D. foliis lanceolatis carinatis imbricatis hirtis, corymbis terminalibus, staminibus quinque sterilibus, germinibus apice biglandulosis. *Venten. malmais.* 72.

Diosma hirta. *Lamarck encyc.* 2. 286. *illustr. tab.* 127 [Diosma] *fig.* 3. *Hort. Kew. ed.* 2. 2. 30.

Diosma purpurea. *Herb. Banks.*

Frutex *ericoides, prolifero-ramosus:* rami 8-10, *longiores caule, erecto-patentes, foliosi, pubescentes;* ramuli *apice floriferi.* Fol. *sparsa, subsessilia, lineari-subulata, subtùs convexo-carinata, hirta, suprà concava, glabra, punctata, saturatè virentia, trita odorem aromaticum fundentia, inferiora patentia, superiora imbricato-conferta:* petioli *brevissimi tuberculo decurrenti impositi, albicantes.* Umbellæ *terminales, convexæ, confertæ;* flores *numerosi, parvi, intensiùs roseo-purpurei:* pedicelli *capillacei, pubescentes, purpurei, duplo longiores flore, ebracteati.* Cal. *duplo brevior corolla, segmentis lanceolatis, extùs pubescentibus.* Pet. 5, *disco hypogyno inserta, unguiculata, erecto-patentia:* ungues *filiformes longitudine calycis:* laminæ *ovales obtusæ, longitudine unguium.* Fil. 10, *eodem plano cum petalis inserta, alternè sterilia:* sterilia *petalis opposita et eorum concolora, linearia, obtusa, concava, infernè pubescentia, longitudine unguium petalorum:* fertilia *subulata, albida, corollam æquantia:* anth. *erectæ, ovales, obtusæ, compressæ, quadrisulcatæ, rubescentes.* Germ. *globosum, suprà biglandulosum, disco immersum:* stylus *rectus, corollæ concolor, filiformis, longitudine staminum.* Plurimùm ex gall. Venten. l. c. vers.

The present species has been very generally mistaken by our gardeners and nurserymen for Diosma *rubra,* so much so that we have never met with it in any of our collections under its real name. It is one of the prettiest and liveliest flowered of the genus, and continues in bloom most part of the spring and summer. Introduced from the Cape of Good Hope (where the whole generic group is native) by Mr. Masson, about 1794. Requires the same treatment as the Cape Heaths, and is easily propagated by cuttings.

A heathlike shrub, proliferously branched: *branches* 8-10, longer than the stem, open, upright, leafy, furred;

branchlets flowerbearing at the top. *Leaves* scattered, subsessile, linearly subulate, underneath convexly keeled and roughly furred, above concave smooth and dotted, deep green, when bruised diffusing a strong aromatic odour, lower ones spreading, upper ones close-pressed and imbricate: *petioles* whitish, very short, fixed to a small decurrent tubercle. *Umbels* terminal, convex, close; *flowers* numerous, small, rose-purple; *pedicles* capillary, furred, purple, twice longer than the flower, bracteless. *Calyx* twice shorter than the corolla; *segments* lanceolate, furred on the outside. *Petals* 5, standing upon the hypogynous basement, unguiculate, uprightly spreading; *unguis* or *narrow part* the length of the calyx, filiform: *laminæ* or *broad part* oval, obtuse, the length of the unguis. *Filaments* 10, inserted at the level of the petals, alternately barren: *barren ones* 5, opposite to the petals and of the same colour, linear, obtuse, concave, furred at the lower part, the length of the ungues of the petals: *fertile ones* subulate, whitish, of the length of the corolla: *anthers* upright, oval, obtuse, 4-furrowed, reddish. *Germen* globular, with two glands on the summit, enchased in the glandular basement: *style* straight, filiform, of the colour of the petals, of the length of the stamens.

The drawing was taken in February from a plant cultivated in the greenhouse of Messrs. Whitley, Brames, and Milne, at the Fulham Nursery.

W. Swainson Esq. del   Pub by J. Ridgway   170. Piccadilly May 1. 1819.   Smith sc.

OPHRYS Speculum.
Mirror-lipped Ophrys.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Jussieu gen.* 64. *Brown prod.* 1. 309. *Div. I. Anthera* adnata subterminalis persistens. *Polliuis massæ* è lobulis angulatis elasticè cohærentibus; basi affixæ. *Brown in Hort. Kew. ed.* 2. 5. 188.

OPHRYS. Suprà vol. 3. *fol.* 205.

O. *Speculum*; folia caulina lanceolata. Petala 3 exteriora expansa, acutiuscula, viridia, interiora 2 acuta, purpurea. Labelli laciniæ laterales erectæ, media rotundata emarginata non appendiculata, medio glaberrima, cærulescens, limbo villoso fusco. *Link in Schrader's journ. fur die bot.* 1799. 2. 324; *(malè à Willdenovio ad* OPHRYDEM Scolopacem citata; *cui tamen verè pertinet* OPHRYS Speculum *Biv. Bern. sic. pl. cent.* 1. 61. *n.* 70. *t.* 4.)

Ophrys ciliata. *Biv. Bernardi sic. pl. cent.* 1. 60. *n.* 69.

Ophrys insectifera; *myodes.* ♄. *Lin. sp. pl. ed.* 2. 2. 1343.

Orchis muscam cæruleam majorem representans. *Breyn. cent.* 100. *t.* 44. *Moris. hist.* 3. 494. *sect.* 12. *t.* 13. *fig.* 11.

Orchis Ricinum villosum referens. *Cup. panph.* 1. *t.* 175. *Hort. cath.* 158; *et. suppl. alt.* 68.—*Bonan. t.* 28.

Nil pulchrius. Radix *bulbi 2 subrotundi.* Caulis 3-6-*uncialis, foliis lanceolatis vaginatus, pauciflorus.* Flores *in spicâ laxâ muscas circumvolantes mirè referunt.* Petalum *superius fornicatum, columnam tegens, marginibus revolutis; 2 lateralia patentia, ovata, viridia, fasciâ roseâ per medium.* Opercula (petala 2 interiora) *petalis (exterioribus) duplo breviora, angustissima, acuminata, intensè purpurea, recurvata.* Nectarii labium (Labellum) *trilobum, cæruleum, splendens, limbo barbato barbâ purpureâ; lobo medio exporrecto, obovato, convexo, emarginato, mutico; lateralibus angustioribus, suspensis alarum instar.* Columna *obtusa.* Biv. Bern. l. c.

One of the prettiest of the genus, and now first introduced by Mr. Swainson; by whom the excellent design, from which our engraving has been made, was taken from a sample that flowered in his garden at Elm Grove, near Liverpool, in February last. The species is native of Portugal and Sicily, in the latter of which countries Mr. Swainson tells us that it is very rare, and that he never found it in any other place except in the hilly meadows behind the Convent of Santa Maria di Gesù, near Palermo. Link speaks of it as growing in Portugal, and abundantly in the neighbourhood of Setuval.

Our plant has been erroneously adduced by Willdenow

for a synonym of OPHRYS *Scolopax*; to which however the OPHRYS *Speculum* of Bivona Bernardi really belongs.

The specific name has been suggested by the lustre of the ceruleous convex disk in the lip of the corolla.

Root of two roundish tubers. *Stem* 3-6 inches high, few-flowered. *Leaves* several, ambient, spreading, lanceolate, sheathing. *Flowers* in a loose spike, with the appearance of so many flying insects. *Uppermost petal* vaulted, covering the column, revolute at the edges; *two outer side-ones* spreading, ovate, green, with a red stripe along the middle; *two inner side ones* twice shorter, very narrow, long-pointed, deep purple, recurved. *Labellum* three-lobed, ceruleous, bright, with a purple bearded border; *middle lobe* pointing forwards, obovate, convex, notched, pointless; *side-ones* narrower, hung like wings. *Column* obtuse.

It is not improbable but that the OPHRYS *vernixia* of the Flora Lusitanica of Professor Brotero may be the same with the present species. But the description is far too scanty and pointless for us to decide by.

[illegible] del. Pub by J. Ridgway 170 Piccadilly June 1. 1819. Smith sc.

ACACIA decurrens. β. *mollis.*

Green-Wattle of Van Diemen's Island.

POLYGAMIA *MONŒCIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. I.* Cor. regularis. Leg. multiloculare, sæpiùs bivalve, dissepimentis transversis, loculis monospermis. Stamina distincta. *Arbores aut frutices; folia abruptè pinnata.*=MIMOSEÆ. *Brown gen. rem. in Flind. voy.* 2. 551.

Div. Foliis duplicato-pinnatis, caule inermi.

A. *decurrens,* inermis foliis bipinnatis, partialibus undecim-(v. quindecim-) jugis, propriis multijugis, petiolis partialibus marginatis, glandulâ inter omnia partialia, spicis globosis pedunculatis axillaribus. *Willd. sp. pl.* 4. 1072.

Acacia decurrens. *Willd. enum.* 2. 1053. *Hort. Kew. ed.* 2. 5. 469.

Mimosa decurrens. *Venten. malmais.* 61.

(β) mollior, gracilior, glaucior; foliis compactioribus; propriis minoribus, contingentibus.

Arbor 20-30-*pedalis, inermis.* Rami juniores *angulosi, villoso-incani.* Fol. *duplicato-pinnata, mollissima, cinereo-glaucescentia, nunc semipedalia latitudine subtriunciali:* partialia 11-15-18-*juga:* propria *vel* foliola *multi-*(40-60-) *juga, parvula, oblongo-linearia, vix* 2 *lineas longa, angusta, obtusa, contingentia:* petiolus communis *albo-villosus, teres, suprà costâ decursivè glanduliferâ elevatâ percursus, glandulâ apertâ subrotundâ pari cuique foliorum partialium interpositâ.* Racemi *è spiculis compositi, axillares simplices et terminales paniculati;* pedunculus *flexuosus, villoso-canescens;* spiculæ *globosæ, numerosæ* (25-30?) *luteæ, magnitudine pisi vel circà, laxiùs dispositæ,* pedicelli *longitudine diametrum spicularum subæquante, pallido-lutescentes:* bracteæ *singulares, minutæ, membranosæ, subovatæ, convexæ, villosæ, multotiès breviores pedicello, ejusque basi arctè appressæ.* Flores *odorem haud ingratè amaricantem spirantes.*

A slender thornless tree, from 20 to 30 feet in height. Native of Van Diemen's Island; where it is known among the colonists by the appellation of "Green Wattle." Notwithstanding its having a smaller finer closer and more glaucous foliage than (α), the tree known in New South Wales by the same denomination; still Mr. Brown is not, at present, aware of any mark that in his apprehension would justify a theoretical separation of the two into distinct species. The leaves retain their soft cinereous verdure when dry, as perfectly as when fresh, a circumstance to which the tree most probably owes the epithet prefixed to the english appellation, which is known to be derived from the economical purpose to which the branches are applied.

(α) was introduced by Sir Joseph Banks in 1790; but we are not informed concerning the date of the introduction of (β). The drawing was taken from a sample sent from Lord Bridgewater's collection in February last. We should have thought that the Acacia *mollissima* of Willdenow's Enumeratio Horti Berolinensis was intended for this plant, had not the leaflets in that been described as 11-15-paired. Requires the protection of the greenhouse, and is well adapted to the conservatory. Far from common in our collections.

Younger *branches* angular, grey-furred. *Leaves* doubly pinnate, very soft, cinereously glaucous, somewhere about six inches long and about three in breadth: *partial ones* 11-15-18-paired; *leaflets* many-(40-60) paired, small, oblongly linear, scarcely two lines in length, narrow, obtuse, touching each other: *general petiole* white-furred, round, at the upper side having a prominent glanduliferous ridge running along its whole length, with a roundish perforated gland between the bases of each pair of partial footstalks. Spikelet-bearing *racemes* axillary and simple or terminal and panicled; *peduncle* flexuose, grey-furred; *spikelets* globular, numerous (20-30), yellow, about as big as a pea, placed rather distantly; *pedicles* about the length of the diameter of the spikelet, pale yellow: *bractes* single, minute, membranous, subovate, convex, villous, many times shorter than the pedicle against which they are closely pressed. The flowers diffuse a bitterish but not unpleasant scent.

NOTE.

In the first page of fol. 361 (Acacia *lophanta*), from the words "What are termed, &c. &c." belongs to the subsequent article (fol. 362, Acacia *longifolia*), and has been accidentally misplaced.

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ERYNGIUM aquaticum.

Yucca-leaved Eryngo.

PENTANDRIA *DIGYNIA.*

Nat. ord. UMBELLIFERÆ. *Jussieu gen.* 218. *Div. IV.* Umbelliferæ anomalæ.

ERYNGIUM. Flores plurimi sessiles paleis distincti, densè aggregati in umbellulâ capitatâ suprà receptaculum conicum involucro polyphyllo rigido cinctum. Singulis *cal.* 5-partitus; *pet.* inflexa; *fructus* ovatus. *Umbellulæ nunc in umbellam involucratam sæpè irregularem et ramosam dispositæ, nunc sparsæ; fol. simplicia aut composita, sæpè spinosa ut et involucra; habitus Cardui.* Juss. l. c. 226.

Div. Foliorum nervis simplicibus parallelis.

E. *aquaticum,* foliis latè linearibus, remotè ciliato-spinosis; floralibus lanceolatis dentatis; capitulis rotundis; caule subdichotomo. *Delaroche eryng.* 54. *n.* XLI.

Eryngium aquaticum. *Lin. sp. pl. ed.* 2. 1. 336; *var. α; (excluso synonymo Gronovii loco citato tenùs). Mill. dict. ed.* 8. *n.* 7. *Jacq. ic. rar.* 2. *t.* 347. *coll.* 1. 151. *Willd. sp. pl.* 1. 1357. *Hort. Kew.* 1. 325. *ed.* 2. 2. 116. *Pursh amer. sept.* 1. 189.

Eryngium yuccifolium. *Michaux bor. amer.* 1. 164.

Eryngium foliis gladiatis, utrinque laxè serratis denticulis subulatis. *Gron. virg. ed.* 2. 40; *(excl. syn. Linnæi).*

Eryngium americanum, yuccæ folio, spinis ad oras molliusculis. *Pluk. alm.* 13. *t.* 175. *fig.* 4.

Eryngium virginianum yuccæ foliis, spinulis raris tenellis et inutilibus marginibus oppositis. *Moris.* 3. 167. *sect.* 7. *t.* 37. *fig.* 21.

Planta 6-8-decimetralis. Caulis *erectus, teres, striatus, viridis, infernè simplex, supernè* 1-3 *ramos laterales emittens, apice* 2-5-*fidus.* Rami *simplices aut bifidi, rariùs dichotomi, profundè striati.* Fol. radicalia *numerosa, linearia,* 3 *decim. longa,* 2-3 *centim. lata, decumbentia, sessilia, vaginantia, molliuscula, subglauca, nervis longitudinalibus parallelis instructa, remotè dentata, dentibus subulatis, tenuibus subsetaceis:* caulina *lanceolata, radicalibus breviora, dentibus majoribus et rigidioribus instructa, illis cæterum similia;* floralia *ovato-lanceolata, verticillata, aut opposita.* Capitula *pedunculata, rotunda, albida.* Pedunculi *terminales aut è dichotomis orti, subangulosi, profundè striati.* Involuc. 8-9-*phyllum; foliolis ovatis, integris, apice spinosis, capitulo paulò brevioribus, conniventibus, à paleis vix distinctis.* Paleæ *ovato-lanceolatæ, integræ calycibus paulò longiores.* Recept. *conicum.* Calycis tubus *(rectiùs? germen inferum) squamis ovatis albis rigidis supernè tectus;* lac. limbi *(foliola calycina?) ovatæ, mucronatæ, margine scariosæ.* Cor. *alba, calyce paulò brevior; petalis ovato-oblongis, profundè emarginatis.* Fil. *corollâ ferè triplo longiora, crassiuscula:* anth. *oblongæ, fuscæ.* Delar. l. c.

Of the same genus with the well-known Sea-Holly (ERYNGIUM *maritimum)* of our own shores. The group belongs to a somewhat anomalous division of the *Umbelliferæ;*

an order, designated in Mr. Brown's remarks, as chiefly european, with its maximum in the temperate climates of the northern hemisphere, certainly much less frequent in the corresponding southern parallels, and as having very few known species within the tropics.

Aquaticum grows in the swamps of Virginia and the Carolinas; and was introduced by Mr. J. Banister, in 1699. Two species were confounded under it by Linnæus; but have been since duly distinguished by M. Delaroche in an elaborate illustration of the genus. All the american species have simple linearly elongated leaves, with straight parallel nerves, and form a section in the generic group, distinct in that respect from the european.

The drawing was taken from a sample in the nursery of Messrs. Frasers in Sloane Square, and was a part of the collection annually imported from America by those industrious horticulturists; one of whom is now forming a botanical establishment at Ramsgate.

Perennial. *Stem,* in the specimen we saw, about a foot and half high, upright, round, fluted, green, simple below, branched above, at the top 2-5-divided: *branches* simple or divided, seldom dichotomous, deeply fluted. *Radical leaves* ambient, numerous, 6-9 inches long, from one to an inch and half broad, sheathing, softish cinereously glaucous, widishly ciliate with soft longish bristles, outermost recumbent: *cauline ones* shorter with broader stiffer bristles, otherwise similar; *floral ones* ovately lanceolate, whorled, or else opposite. *Flower-heads* about ¾ of an inch in diameter, peduncled, round, whitish. *Peduncles* terminal, or in the dichotomies, subangular, deeply fluted. *Involucre* 8-9-leafletted; *leaflets* ovately acuminate, entire, spinously pointed, but little shorter than the flower-head, spreading, scarcely distinguishable from *paleæ,* which divide the florets. *Paleæ* ovately lanceolate, entire, but little higher than the florets. *Receptacle* conical. *Germen* inferior, armed above with small white rigid ovate scales. *Leaflets of the calyx* ovate, mucronate, with a scariose margin. *Corolla* white: *petals* ovately oblong, deeply notched at the end. *Filaments* nearly 3 times longer than the corolla, thickish: *anthers* oblong, dark-coloured.

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XYLOPHYLLA falcata.

Sickle-leaved Sea-side Laurel.

MONŒCIA *MONADELPHIA.*

Nat. ord. EUPHORBIÆ. *Jussieu gen.* 384. *Div. I.* Styli plures definiti, sæpiùs tres.

EUPHORBIACEÆ. *Brown gen. rem. app. Flind. voy.* 555.

XYLOPHYLLA. MASC. *Cal.* 6-partitus. *Cor.* 0. *Nect.* glandulæ 6, globosæ. FEM. *Cal.* et *Nect.* ut in masc. *Germ.* superum. *Styli* tres. *Stigmata* tripartita. *Caps.* 3-loc. *Sem.* 2, in singulis loculamentis. *Hort. Kew. ed.* 2. 5. 336.

Frutex facie CACTI Phyllanthi; *folia (aut potiùs ramuli aphylli dilatati complanati foliis similes, undè nomen) simplicia alterna, utrinque dentata, stipulæ simplici carinatæ subvaginanti-axillaria; flores in foliorum dentibus conglomerati, quidam steriles et ideò masculi.* Juss. l. c. 387.

X. *falcata*, foliis sparsis lineari-lanceolatis subfalcatis crenatis, floribus subsessilibus triandris monoicis. *Swartz prod.* 28.

Xylophylla falcata. *Hort. Kew.* 1. 376. *ed.* 2. 5. 336. *Willd. sp. pl.* 1. 1501. *Andrews's reposit.* 331.

Phyllanthus falcata. *Swartz fl. ind. occ.* 2. 1115. *Willd. enum.* 2. 996.

Phyllanthus Epiphyllanthus. *Lin. sp. pl. ed.* 2. 2. 1392.

Phyllanthus americana, planta flores è singulis foliorum crenis proferens. *Comm. hort.* 1. 199. *t.* 102. *Catesb. car.* 2. 26. *t.* 26.

Frutex *5-6-pedalis, ramosus, cortice cinereo.* Rami *sparsi, teretes, stricti, glabri.* Fol. *subsessilia, sparsa, s. versus apices ramorum subconferta, 4-5-pollicaria, lineari-lanceolata, subfalcata, erectiuscula, crenata, crenis remotis floriferis, striata, lineata, saturatè viridia, nitida.* Flores *ad crenos conferti, subconglomerati, brevissimè pedicellati, sanguinei, monoici, masculi et feminei mixti; hi pauciores.* MASCULI. Cal. *6-phyllus, patens.* Foliola 3 *exteriora dimidio minora, ovato-acuta, pallidiora; 3 interiora ovata obtusa pallidiora.* Glandulæ 6, *ovatæ, rubræ, ad basin foliorum calycis.* Fil. *cylindricum erectum purpureum apice vix trifidum.* Anth. 3, *didymæ, lobis subrotundis, luteis.* FEMINEI. Cal. *ut in mare, sed parùm major.* Germ. *subrotundum, margine crenulato basi cinctum.* Styli 3, *reflexi.* Stigmata *bifida.* Sw. fl. ind. occ. l. c.

A hothouse shrub, introduced from the Bahama islands before 1699; at which time it was cultivated in the Royal Garden at Hampton Court.

Five or six feet high, branching; bark cinereous. *Branches* scattered, round, stiff, smooth. *Leaves* subsessile, scattered, sometimes rather crowded towards the top of the branches, 4-5- inches long, linearly lanceolate, subfalcate, inclining to be upright, crenate, with wideset flower-bearing crenæ or notches, fluted or striate marked with lines

or lineate deep green, shining. *Flowers* crowded in the notches, subconglomerate, very shortly pedicled, purple, monoicous, sterile and fertile ones mingling together; the latter fewest. In the staminiferous flowers the *calyx* is of six pieces or leaflets and spreading: the 3 *outer leaflets* smaller than the others by one half, ovate and pointed, of a palish red; the 3 *inner ones* ovate and obtuse, likewise of a palish red. *Glands* 6 ovate, deep crimson, at the leaflets of the calyx. *Filament* cylindric, upright, purple, at the top slightly trifid. *Anthers* 3, twin, *lobes* roundish, yellow. In the pistilliferous flowers the calyx is the same as in the other, but a little larger; *germen* roundish, encircled by a crenulated ledge at the base; *styles* 3, reflex; *stigmas* bifid.

The drawing was taken in the autumn, in the stove of the nursery of Messrs. Whitley, Brames, and Milne, at Fulham.

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HELICONIA Bihai.

Wild Plantain.

PENTANDRIA *MONOGYNIA.*

Nat. ord. MUSÆ. *Jussieu gen.* 61.

HELICONIA. Spathæ communes partialesque alternæ, distinctæ, floribus hermaphroditis. *Cal.* 0. *Pet.* 3, oblonga, canaliculata erecta, acuta, æqualia. *Nectarium* diphyllum: foliolo altero petalis subæquali, altero brevissimo canaliculato, uncinato, opposito. *Fil.* filiformia: *anth.* longæ, erectæ. *Germ.* inferum, oblongum. *Stylus* staminibus brevior. *Stig.* longum, gracile, curvatum, capitulo terminali. *Caps.* oblonga, truncata, 3-quetra, 3-loc. *sem.* solitaria oblonga. *Schreb. gen. pl.* 1. 158. *n.* 403. Caulis *herbaceus:* fol. *alterna vaginantia, juniora convoluta, nervo longitudinali medio simplici emittente utrinque nervos innumeros transversìm aut obliquè parallelos.* Spadix *rectus,* spathis *distichis magnis distantibus, cymbiformibus, florum* fasciculos *involventibus;* flores *in singulo fasciculo densè spicati aut glomerati.* Juss. l. c.

H. *Bihai,* foliis basi apiceque acutis, spadice erecto radicali, spathis distichis multifloris, nectarii folio superiore trifido. *Willd. sp. pl.* 1. 1187.

Heliconia Bihai. *Swartz obs.* 96. *t.* 5. *f.* 2. *Thompson's bot. displ.* 8. *Hort. Kew. ed.* 2. 2. 54. *Andrews's reposit.* 640.

Heliconia luteo-fusca. *Jacq. hort. schœnb.* 1. 25; *absque icone.*

Musa Bihai. *Lin. sp. pl. ed.* 2. 2. 1477.

Musa spadice erecto, spathis rigidis amplexantibus distichè et alternatìm sitis. *Browne jam.* 364.

Musa humilior, foliis minoribus nigricantibus, fructû minimo erecto. *Sloane jam.* 2. 147.

Planta herbacea, maxima, 10-12-*pedalis.* Fol. *radicalia, longè petiolata, oblonga, utrinque angustiora, integra, nervis parallelis lineata, erecta, consistentia, glaberrima:* petioli *longitudine laminæ v. magìs, teretes, crassi, suprà canaliculati.* Scapus *erectus, longitudine petiolorum, teres, crassus, glaber.* Spadix *simplex erectus.* Spathæ universales *plures* (8-10) *alternæ, rigidæ, cordatæ, amplectentes, erecto-patentes, acuminatæ, distichæ, luteo-fuscæ.* Flores *fasciculati in unâquâque spathâ reconditi,* spathis *partialibus membranaceis, albidis florum longitudine distincti, subsessiles, pallidè s. viridi-lutei.* Cor. 3-*petala; basi cohærens, inæqualis, curva et recurva et quasi bilabiata.* Pet. 2 superiora *lanceolata acuta, apice paulùm reflexa, infra medium conniventia, et versùs basin petalo inferiore coalita, basi albida:* pet. inferius *superioribus vix longius, lanceolatum, concavum, apice paulùm recurvo integro acuminato, basi nectarium posticè amplectens.* Nect. *diphyllum:* foliolum posterius *longitudine corollæ, lato-lanceolatum, concavum, suprà medium subtùs ventricosum; apice 3-fidum, marginibus membranaceis conniventibus inflexis filamenta includens, basi humore nectareo repletum:* foliolum anterius *minutissimum, lanceolatum, petalo anteriori adnatum.* Fil. *corollæ ferè longitudine infra medium coalita in tubum anticè apertum, foliolo nectarii posteriori adglutinatum, filiformia:* anth. *lineares, acutæ,* 2-*loc., luteæ, sæpè spiralitèr tortæ.* Germ. 3-*gonum, oblongum, basi attenuatum, apice retusum, album:* stylus *staminibus brevior, filiformis,* 3-*queter:* stig. 3-*angulare, perforatum, luteum, obtusum, inflexum.* Caps. 3-*gona, carnosa, nigrescens.* Swartz. l. c.

HELICONIA belongs to the small tropical order of *Musæ*, and differs from the genus MUSA, which includes the Plantain and Banana Trees, in having all the flowers fertile, and no mixture of barren ones as there. STRELITZIA, the magnificent group of which all the known species have been recently illustrated with unprecedented skill and splendour in the "STRELITZIA DEPICTA" of Mr. Francis Bauer, is another co-ordinate genus.

The present species is found wild in moist shady spots on the west-indian mountains; and was introduced by Mr. A. Anderson in 1786. The drawing was taken at the nursery of Messrs. Loddiges' at Hackney, where it is cultivated in a hothouse, which is both warmed and irrigated by means of steam.

A large herbaceous plant, 10 feet high. *Leaves* radical, long-petioled, oblong, narrowed at each end, entire, marked with parallel nerves, upright, standing together, quite smooth: *petioles* as long or longer than the blade, round, thick, channelled at the upper side. *Scape* upright, the height of the petioles, round, thick, smooth. *Spadix* simple, upright. *General spathes* several (8-10), alternate, rigid, cordate, clasping, uprightly spreading, acuminate, distich, yellow-brown. *Flowers* subsessile, of a pale or greenish yellow, fascicled, embosomed in the separate spathes, and parted by whitish membranous *partial spathes* of the same length as themselves. *Corolla* three-petaled; cohering at the base, unequal, bent in opposite directions, and as if bilabiate: 2 *upper petals* lanceolate, pointed, a little reflex at the tip, converging below the middle, and towards the base united with the lower petal: *lower petal* hardly longer than the upper ones, lanceolate, concave, clasping the hinder part of the nectary by the base, tip slightly recurvate, entire long-pointed. *Nectary* of two pieces: the hinder piece of the length of the corolla, broadly lanceolate, concave, ventricose underneath below the middle, three-cleft at the top, enclosing the filaments by the membranous convergent inbent edges of the sides, nectariferous at the bottom: *front piece* very minute, lanceolate, adnate to the front petal. *Filaments* nearly of the length of the corolla, united below the middle into tubes which open in front, adhering to the hinder piece of the nectary, filiform: *anthers* linear, pointed, bilocular, yellow, often twisted spirally.

Hart. del.

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Smith. sc.

ORCHIS tephrosanthos; β. *undulatifolia.*

Curled-leaved Orchis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Jussieu gen.* 64. *Brown prod.* 1. 309. *Div. I. ORCHIS.* *Suprà vol.* 3. *fol.* 202.

Div. Radice bituberosâ.

O. *tephrosanthos*, labello 3-partito, laciniis linearibus, mediâ 2-furcâ cum mucrone inter crura, petalis acutis liberè conniventibus, bracteis lato-subulatis cornûque duplo brevioribus germine.

Orchis tephrosanthos. *Villars delph.* 2. 32. *Desfont. atl.* 2. 319. *Willd. sp. pl.* 4. 21. *Swartz in schrad. neues journ.* 1. 15.

Orchis longicruris. *Link in schrad. journ.* 1799. 2. 323. *Willd. sp. pl.* 4. 22.

Orchis militaris; ε. *Lin. sp. pl. ed.* 2. 2. 1334.

Orchis zoophora cercopithecum exprimens oreades. *Columm. ecphr.* 319. *t.* 320.

Orchis flore simiam referens. *Vaill. paris. t.* 31. *figg.* 25, 26.

(β) flore majore; foliis undulatis.

Orchis undulatifolia. *Biv. Bernardi sic. pl. cent.* 2. 44. *n.* 61. *t.* 6.

Tubera *mole nucis avellanæ majoris.* Fol. 8-9, *plurifaria, erecto-patentia,* 3-5-*uncialia, latiora* ¼ *unciæ vix excedentia, oblongo-et ligulato-lanceolata, remotiùs lineata, acuta, interiora interdùm undulata.* Caulis *spithamæus ad dodrantalem, striato-teres.* Spica *densa, brevis, conica, albo-incarnata,* floribus *odoris.* Bracteæ *albo-membranosæ, lato-subulatæ, germini appressæ duploque breviores.* Germ. *galeæ semunciali æquale, tortum, curvatum, rubido-virens.* Cor. *semiringens:* pet. 3 exter. *galeato-conniventia, libera, ovato-lanceolata, cuspidata, lateralia surrecto-obliquata* 4-*lineata, medium* 3-*lineatum:* 2 inter. *duplo minora, concolora, lineari-oblonga acumine abrupto brevi, columnam intercludentia:* labellum ⅓ *parte v. circà longius petalis, propendens; lamina oblongiuscula, angustiùs* 5-*fido*-3-*loba, intùs disco convexiusculo subtilitèr scabrata, lobi laterales lineari-attenuati, medius longior* 3-*fidus laciniis lateralibus lobos laterales exactè referentibus mediâ minimâ mucroniformi:* calcar *germini rectè præpendens duploque brevius, oblongum, supernè compresso-subdilatatum, obsoletè emarginatum.* Columna *brevis, alba,* thecâ *puniceâ:* pollinis massæ *indivisæ, æruginosæ.* Stig. *bulla subcordata, subpunicans in cavitate anticâ columnæ propè infra glandulam antheriferam.*

We do not think our plant will bear a separation from this species, solely on account of the crispature in the foliage, and we are not aware of any other distinctive mark. *Tephrosanthos* itself does not appear to us to afford any very certain difference from *militaris*; the coloured pencilled spots upon the label have been relied on, though they are

now known to be the objects of mere variety. The principal difference we can detect between the two, lies in the longer narrower and more tapered segments of the label of the former. The shortness of the bractes in the latter, we suspect from a review of samples in the Banksian Herbarium, is occasional and will not hold good as a character. If the outer petals are really confluent in *militaris*, this might afford a valid distinction, but we believe these will be found merely to converge, as in our plant, but not to cohere.

The drawing was taken from a sample remitted by Mr. Swainson, with whom it had flowered at Elm Grove, in February last. The root was imported by that gentleman from Sicily, where the plant grows with a longer and more luxuriant spike than in the present specimen, and is common on the mountains of Messina, but more rare on those of Palermo.

Tubers twin, ovately oblong, about the size of largish acorns. *Rootsheath* white, membranous, nerved. *Leaves* 8-9, alternate, compassing, uprightly spreading, 3-5 inches long, where widest about ¾ of an inch across, smooth, lineated, ovately and ligulately lanceolate, sharp, midrib keeled, inner ones gradually longer sheathing farther more upright curled, one or two of the lower ones and the upper stem-one plain. *Stem* 5-9 inches high, pale green, round, fluted. *Spike* short, dense, cylindric, conical; *flowers* white and flesh-coloured, scented. *Bractes* white, membranous, broadly subulate long-pointed, as if awned, closepressed to the germen than which they are twice shorter. *Germen* half an inch long, roundedly hexagonal, equal to the casque of the corolla, twisted. *Corolla* semiringent: 3 *outer petals* converging into a casque, ovately lanceolate, long-pointed, concave, 2 side ones obliquely erected, with 4 deep red streaks, middle one 3-streaked: 2 *inner petals* twice smaller, of the same colour, linearly oblong with a short abrupt point, lapping together over the summit of the column: *label* pale-pink, about ⅓ longer than the petals, propendent, lamina or broad part nearly oblong, narrowly fivecleft and threelobed, disk oblong slightly raised minutely roughened, two side lobes linear and tapered narrow divergent, middle lobe about ⅓ longer trifid, side segments of the same shape as the two lateral lobes, middle segment

minute mucroniform: *spur* pale, twice shorter than the germen, descendent, oblong, compressed, slightly dilated upwards, obscurely notched at the end. *Column* short, oblate, white; *anthercase* dark crimson: *pollen-masses* verdigrise-coloured. *Stigma* raised, heart-shaped, purplish, in front of the inner wall of the cavity of the column, close below the gland on which the anther stands.

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VIBURNUM rugosum.

Canary Laurestine.

PENTANDRIA *TRIGYNIA.*

Nat. ord. CAPRIFOLIA. *Jussieu gen.* 210. *Div. III.* Calyx bracteatus. Stylus nullus: stigmata 3. Cor. monopetala.

VIBURNUM. *Cal.* parvus 5-fidus, basi bracteolatus. *Cor.* parva, campanulata 5-fida. *Stam.* 5, ejusdem laciniis alterna: *stylus* 0; *stig.* 3. *Bacca* 1-sperma, coronata in *Tino* (Tournef.), in cæteris nuda. *Frutices; folia opposita, basi nuda; flores umbellato-corymbosi terminales, in* Tino *et* Viburno *(Tournef.) hemaphroditi omnes, in* Opulo *(Tournef.) marginales neutri difformes et multò majores.* Juss. gen. 213.

Div. Foliis integerrimis.

V. *rugosum,* foliis lato-ovatis rugosis subtùs hirtis, involucro universali 7-phyllo. *Persoon syn.* 1. 326. *(excluso synon. Hort. Kew. quoad varietatem excitatam).*

Viburnum rugosum. *Sweet hort. sub. lond.* 60.

Viburnum Tinus. δ; *strictum;* foliis ovatis undique hirtis rigidis. *Hort. Kew.* 1. 370. *ed.* 2. 2. 167. *Willd. sp. pl.* 1. 1486.

Caulis *satìs altus, ramis strictis, viridibus subangulatis pilosis.* Fol. *distantia, divaricato-recurva, nunc deflexa, opaco-virentia, submembranacea, rigida, hirta, lato-ovalia, utrinque attenuata v. acuminata fine obtusiusculo atque basi angustata, grossè rugosa, aspera nervo medio alios alternos adscendentes subtùs varicosos densiùsque hirtos utrinque emittente, venosa, subtùs pallida, longiora semipedalia ultràque, latitudine 4-unciali:* petioli *divaricati, pluriès breviores laminâ, hirti, compresso-teretes, suprà canaliculati.* Cymæ *niveo-candicantes, subodoratæ, amplæ, congestæ, decompositæ, terminales, convexiusculæ:* pedunculi *pallidè virentes, hirti, anguloso-striati, stricti:* pedicelli *uniflori, brevissimi, basi aut in medio opposito-bibracteati:* involucrorum foliola *minima, appressa, herbacea, ovato-oblonga, obtusa;* partialium *quaterna.* Cal. *parvulus, brevis, herbaceus, extùs pubescens, rotato-campanulatus, dentibus 5 acutis apice rubentibus.* Cor. *nivea, campanulato-rotata, demùmque recurva, multotiès amplior calyce; tubo curto; limbi laciniis rotundatis.* Germ. *ovatum, album, fauce corollæ inclusum:* stigmata *trina sessilia pappilliformia, periphæriâ roseâ.* Pollen *ochroleucum.*

We know our plant to be the VIBURNUM *Tinus.* δ. of the Hortus Kewensis, from the inspection of the Banksian Herbarium; where the specimen gathered in the Canaries by Mr. Masson is preserved. The species was first instituted by Persoon. It differs from the Common Laurestine in having a somewhat membranous rigid hard-furred coarsely wrinkled or embossed opaquely green leaf, from 3 inches to half a foot in length and 4 inches in breadth. The in-

florescence is likewise larger and whiter, the branches green rigid and roughly furred; and the foliage more distant.

Introduced in 1778 from the Canaries by Mr. Masson, who found it growing in mountainous situations. The drawing was taken in March last, at the nursery of Messrs. Colville, in the King's Road, Chelsea. We are told it will live out of doors in warm sheltered situations; but we believe it does best when preserved during the winter in a garden-frame.

A tallish shrub; *branches* upright, stiffish, green, somewhat angular, furred. *Leaves* wideset, outstretched, recurved, broadly oval, tapered each way, acuminate with a bluntish point, pale underneath with a more conspicuous fur and varicose nerves: *petioles* several times shorter than the blade. *Flowers* snow-white, somewhat scented, in large decompounded terminal convexly crowded cymes: *peduncles* pale green, roughishly furred, somewhat angular; *pedicles* very short, one-flowered, with two opposite *bractes* either at the base or middle: *leaflets* of the *involucres* very small, close-pressed, herbaceous, ovately oblong, obtuse; *partial ones* in fours. *Calyx* small, shallow, herbaceous, furred externally, rotately campanulate, teeth pointed, red at the tips. *Corolla* campanulately rotate, at length recurved, many times larger than the calyx; *tube* very short; *segments* of the *limb* rounded. *Germen* ovate, white, enclosed in the funnel of the corolla: *stigmas* sessile, rosy red at the top. *Pollen* cream-coloured.

H. art. del.

Pub. by J. Ridgway 170 Piccadilly June 1 1819

Smith sc.

CROTALARIA incana.
Hoary Crotalaria.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ. *Jussieu gen.* 347. *Div. V.* Cor. irregularis papilionaceæ. Legum. 1-loc. 2 valv. Frutices aut herbæ; fol. simplicia aut ternata aut rariùs digitata; stipulæ nunc subnullæ nunc conspicuæ imo petiolo adnatæ aut ab eodem distinctæ.=Papilionaceæ. *Brown in app. to Flind. voy.* 2. 552.

CROTALARIA. *Suprà vol.* 2. *fol.* 128.

C. *incana*, foliis ternatis ovalibus subtùs villosis, racemis spiciformibus, carina margine tomentosa, leguminibus sessilibus hirsutis. *Hort. Kew.* 3. 20.

Crotalaria incana. *Lin. sp. pl. ed.* 2. 2. 1005. *Jacq. obs.* 4. 4. *t.* 82. *Cavan. ic.* 4. 11. *t.* 322. *Willd. sp. pl.* 3. 985. *enum.* 2. 748. *Hort. Kew. ed.* 2. 4. 274.

Crotolaria trifolia. *Riv. tetrapet.* 22.

Subbipedalis, pubescens. Folia *ternata, tenera;* foliola *ovalia aut obovata, fine obtuso mucronato, suprà virentia, infrà villoso-canescentia, unciam aliquantùm exsuperantia:* petiolus communis *villoso-albicans, vix longior foliolis;* petioluli *hirsutiores, breves:* stipulæ *setaceæ, villosæ, breves, caducæ.* Racemi *terminales, simplices, spicati, multiflori, semipedales, erecti;* pedicelli *breves, cum flore nutantes, villosi.* Cal. *villosus.* Cor. *flava, lineato-variegata acuta;* vex. *carinatum, longius alis:* carinæ petala *margine albo lanata.*

We have ascertained by a sample in the Banksian Herbarium, collated with that in the Linnean, that our plant belongs to the Crotalaria *incana* of Linnæus; but have strong doubts of its being of the same species with the plants adduced for synonyms from the works of Sloane and Swartz; which we have in consequence omitted in the present article.

The drawing was taken from a specimen that flowered in the hothouse at Spofforth, and was kindly sent to us by Mr. Herbert. The species is stated in the Hortus Kewensis to be annual and native of the West Indies. Mr. Herbert informs us that he had the seed of it from the East Indies, and that the plant is perennial. Cultivated by the Duchess of Beaufort in 1714.

About two feet high, furred. *Leaves* ternate, tender; *leaflets* oval and obovate, rounded or blunted at the end

and mucronate, green above, villous and hoary underneath, something more than an inch in length: *general petiole* scarcely longer than the leaflets, villous and hoary; *partial petioles* shaggy, very short: *stipules* short, setiform, villous, caducous. *Racemes* terminal, simple, spiked, many-flowered, half a foot long, upright: *pedicles* short, nutant as well as the flowers, villous. *Calyx* villous. *Corolla* yellow, lineately variegated, pointed: *vexillum* keeled, longer than the *alæ: petals* of the *carina* edged with a white woolly pubescence.

Hart del. Pub. by J. Ridgway 170 Piccadilly. Feby 1. 1819 Smith f.

PULTENÆA retusa.

Obtuse-leaved Pultenæa.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. VI.* PAPILIONACEÆ. *Brown gen. rem. in Flind. voy.* 2. 552.

PULTENÆA. *Cal.* 5-fidus, labiis proportionatis, bibracteatus (bracteis sæpiùs ipso tubo insidentibus). *Cor.* papilionacea. *Germ.* sessile, dispermum. *Stylus* subulatus, adscendens. *Stig.* simplex. *Strophiola* seminis lobis posticis incisis. *Brown in Hort. Kew. ed.* 2. 3. 17.

P. *retusa,* capitulis terminalibus, foliis linearibus retusis muticis planis glabris, bracteis calyce paulò longioribus. *Brown in Hort. Kew. ed.* 2. 3. 18.

Pultenæa retusa. *Smith in ann. of bot.* 1. 502; *et in trans. linn. soc.* 9. 247. *Willd. enum.* 1. 438.

Fruticulus *erectus, strictiusculus,* ramis *villosis, foliosis, foliorum decursû angulatis, ramulosis,* ramulis *summitate et medio ramorum laxiùs sparsèque congregatis, axillaribus, ascendentibus, apice floriferis, totis appressè foliosis.* Fol. *sparsa, rigida, crassiuscula, obscurè viridia, glabra, cuneato-linearia, retusa, mutica, subsemuncialia;* petioli *breves, teretes, rugulosi:* stipulæ 2 *scarioso-membranaceæ, fusco-rubentes, petiolo (cui intùs utrinque appressæ) breviores, subulatæ.* Flores *capitati:* capitula *pauci-(subquinque)-flora, subsessilia, parùm exsuperantia folia involucralia:* gemmarum floralium squamæ *persistentes, plures, parvulæ, rigidæ, sphacelatæ, ustulato-spadiceæ, oblato-ovatæ, concavæ, extùs subsericeæ, pedicellis breviores, imbricato-ambientes.* Pedicelli *crassi, sericei, erecti, breviores calyce.* Cal. *duplo brevior corollâ, tubulosus, membranosus, pallidus, sericeus, æquabilitèr 5-dentatus, dentibus acuminatis triplo circà brevioribus tubo.* Bracteæ *medio tubi calycini utrinque insertæ, lanceolato-lineares, spadiceæ, calyce paulò altiores, sericeo-ciliatæ.* Cor. *flava, glabra,* $\frac{1}{4}$ *partem unciæ parùm excedens.*

A genus belonging to the decandrous division of the Papilionaceous plants of New South Wales, the large proportion of which, in relation to the diadelphous division of the same, forms a striking anomaly in the vegetation of those regions.

The species was introduced by Sir Joseph Banks in 1789; but has not been figured in any work we are acquainted with. The drawing was taken from a sample remitted in April by Mr. Herbert from his collection at Spofforth; where it is cultivated in the greenhouse.

A small upright shrub: *branches* villous, leafy, angular; *branchlets* axillary, upright, flowerbearing at the end.

Leaves scattered, rigid, thickish, dark green, smooth, cuneately linear, retuse, pointless, about half an inch long: *petioles* short, round, wrinkled; *stipules* 2, scariosely membranous, reddish brown, subulate, shorter than the petiole to the inside of which they are flatly pressed. *Flowers* in heads: *heads* few-(5-)flowered, nearly sessile, slightly overtopping the leaflets that envelop them: *scales of the flower-buds* persistent, several, small, rigid, arid, brown-bay, oblately ovate, concave, somewhat silky on the outside, shorter than the pedicles, imbricately compassing. *Pedicles* thick, silky, upright, shorter than the calyx. *Calyx* twice shorter than the corolla, tubular, membranous, pale, silky, evenly 5-toothed, the teeth acuminate and 3 times shorter than the tube. *Bractes* inserted at the middle of the tube of the calyx, lanceolately linear, brown-bay, rather higher than the calyx, with a silky fringe. *Corolla* yellow, smooth, not much exceeding the fourth of an inch in length.

Hart del.

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Smith sc

PÆONIA Moutan. α.

Sir Abraham Hume's Tree-Pæony. Moutan.

POLYANDRIA *DIGYNIA.*

Nat. ord. Ranunculaceæ. *Decand. syst. nat.* 1. 127. *Div. II.* Ranunculaceæ spuriæ, *Nempè antheris introrsis donatæ.*

PÆONIA. Cal. 5-sepalus, sepalis subfoliaceis inæqualibus orbiculatis persistentibus. *Pet.* 5 (interdùm 6-10) orbicularia subæqualia ungue destituta. *Discus* carnosus germina cingens; *germ.* 2-5 grossa; *stig.* sessilia crassa falcata bilamellata crispa; *capss.* (*folliculive*) 2-5, ovatæ, apice stigmate superatæ, 1-loc., polyspermæ, suturâ longitudinali supernè dehiscentes: *sem.* subglobosa nitida; *umbilicus* prominulus; *albumen* carnosum; *embryo* in basi locatus. *Herbæ aut rariùs suffrutices; rad. perennes collo crasso subhorizontali, fibris fasciculatis extùs nigricantibus aut omnibus aut aliis cylindricis, alteris in tubercula ovata cylindraceave incrassatis;* vaginæ *squamosæ ad basin caulis;* gemmæ radicales *squamis petiolaribus constantes; fol. alterna petiolata bis ternatìm secta;* flores *terminales, ampli, purpurei, rosei, aut albi (nunquàm nec cærulei nec lutei), facilè multiplices.* Dec. l. c. 386.

P. *Moutan,* caule fruticoso, foliis bipinnatìm sectis, segmentis ovali-oblongis subtùs glaucis, capsulis villosis interdùm urceolo inclusis. *Decand. loc. cit.* 387.

Pæonia Moutan. *Curtis's magaz.* 1154. *Bonpl. nav. et malm.* 1. *et* 61. *t.* 1. *et* 23. *Smith in Rees's cyclop. n.* 1. *Hort. Kew. ed.* 2. 3. 315.

Pæonia suffruticosa. *Andrews's reposit.* 373, 448.

Pæonia officinalis, var. *Thunb. jap.* 230. *Lour. cochin.* 1. 343.

Moutan ou Pivoine, arbrisseau de Chine. *Mem. chin.* 3. 461.

(β) *Papaveracea;* capsulis in urceolo omninò inclusis.

Pæonia papaveracea. *Andrews's reposit.* 463. *Smith in Rees's cyclop. n.* 2.

Frutex *elegantissimus in hortis nostris sæpiùs* 3-4-*pedalis, ad* 8-10 *pedes interdùm crescens;* caulis *teres, ramosus, digiti crassitie, lævis;* rami *novelli foliosi, cæteri nudi;* fol. *patentia, biternatìm bipinnatìmve secta, segmentis ovalibus oblongisve, inferioribus integris, summis trilobis supernè intensè viridibus glabris, subtus glaucis pilos minimos sparsos gerentibus;* flores *terminales, ampli, solitarii, suaveolentes;* fol. floralia 2 *immediatè sub flore involucralia,* 2-3-*partita, lobis oblongis sæpiùs reflexis;* cal. 5-*sepalus;* pet. 5-10 *et plurima magna orbiculata sæpè inciso-dentata.*

(α) Urceolus carnosus *germinum basin cingens, apice dentatus;* germina 2-9 *ovato-oblonga tomentoso-villosa,* stigmate *crispo rubro coronata;* capss. *pollicem longæ, rufis villis onustæ, stigmate coronatæ, intùs* 5-7-*spermæ, maturæ patentes. Variat* floribus *sæpiùs plenis, semiplenisve roseo-purpureis aut albis, petalis subintegris aut incisis, ramis longioribus aut brevioribus, foliis majoribus pallidioribus aut minoribus intensiùs viridibus.*

(β) (*quæ forsàn species propria*) *habet* flores *magnos semiplenos albos ad basin petalorum elegantèr purpureo-radiatos;* pet. *sæpiùs apice lacera;* capss. *ferè semper* 6 *villosas dispermas.* Germina *hujus stirpis sunt, priùs observante cl. R. Brown, intra urceolum carnoso-membranaceum glabrum subglobosum apice perforatum dentatumque, modo singularissimo ut in Caricibus, inclusa!* stigmata *extra orificium urceoli paululùm exserta.* Dec. l c.

The sample from which our drawing has been made, is the first produce of a plant recently received from China by Sir Abraham Hume, who had the goodness to send it from Wormleybury. It does not seem to be precisely either of the two double varieties, known in our gardens by the denominations of *var. rosea fl. pl.* and *var. banksia fl. pl.* Yet Mr. Sabine, who has attended very particularly to the variation of all the species of Peony, appears to be convinced that its difference from *banksia* consists merely in its being a weaker specimen.

This beautiful and most desirable shrub is native of China, and was obtained, like the greater proportion of the more valuable ornaments of our gardens, by the care of Sir Joseph Banks, who had sent out proper instructions for the purpose. The first living plant reached England in 1794; several had been previously received, but none had survived the passage. In China, where the florist is said to have a list of two hundred and forty varieties, the plants, we are told, sometimes attain the height of from eight to ten feet. To have it in perfection in our climate, it should be planted in the border of the conservatory; but it will also do well in the open ground, if protected during the period of its bloom by a glass case.

Stem round, branching, about an inch in diameter, smooth. *Young branches* leafy; others leafless. *Leaves* spreading, biternately or bipinnately divided, segments oval or oblong, lower ones entire, uppermost threelobed, of a deep green at the upper side and smooth, at the under glaucous and furred with small scattered hairs. *Flowers* terminal, large, solitary, sweet-scented: *floral leaves* two by way of involucre immediately under the flower, 2-3-parted, with oblong and generally reflectent lobes. *Calyx* of five leaflets. *Petals* from five to ten or sometimes many more, large, orbicular often indented at the border.

It does not yet appear to be decided whether (β), the plant with large white semi-double flowers, known by the title of *papaveracea*, is specifically distinct from (α) or not. We shall subjoin the translation of the distinctive characteristics of each as given by M. Decandolle, by whom the two are recorded provisionally, as mutual varieties.

In (α) the fleshy cup in which the bases of the germens are contained, is indented at the top: the *germens*

are from two to nine, ovately oblong, tomentosely villous, and crowned with a stigma which is red and curled; the *capsules* an inch long, furred with reddish villi, terminated by the stigma, 5-7-seeded, spreading wide open when ripe. This varies with flowers which are generally either full, or else semi-double, of a very red or white colour, with the *petals* either nearly entire or else indented; the *branches* of greater or less length; with a larger and paler foliage, or with a smaller deeper green one.

(β) has very large semi-double white flowers with a deep purple radiated mark at the base of the petals. The *petals* are generally torn or jagged at the top. The *capsules* are almost always six in number, villous, and twoseeded. Mr. Brown was the first to observe, and describe, the curious fleshily membranous envelop which holds the germens together, and which is somewhat analogous to that in the *Carices;* it is subglobular, smooth, open, and indented at the top, from which the *stigmas* are a little protruded.

Syd Edwards del

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Smith sc

TULIPA gesneriana.
Common Tulip.

HEXANDRIA *TRIGYNIA; (nobis.)*

Nat. ord. LILIA. *Jussieu gen.* 48.
TULIPA. Suprà vol. 3. *fol.* 204.

T. *gesneriana*, caule unifloro, floribus erectis, petalis obtusiusculis staminibusque glabris, foliis lanceolatis. *Marsch. Bieb. fl. taur. cauc.* 1. 271.
Tulipa gesneriana. *Lin. sp. pl. ed.* 2. 1. 438. *Hort. Kew.* 1. 435. *ed.* 2. 2. 249. *Brot. fl. lusit; (in hortis). Desfont. atl.* 1. 293; *(in hortis). Sowerby fl. lux.* 5, 6, 11, 17. *Nobis in Curtis's magaz.* 1135.
Tulipa hortensis. *Gærtn. sem.* 1. 64. *t.* 17. *fig.* 2.
Tulipa. *Clus. hist.* 137-148; *passim. Park. par.* 45-65; *passim. Swert. floril.* 8, 9, 10; *passim. Hort. eyst. ord.* 4. *vern. passim. Tourn. inst. passim. Beckman beytr. zur gesch. der erfind.* 1. 223. 2. 548.
Tulipa turcarum. *Gesn. in cordi hist.* 213.

Proles lateralis. Folia *trina ovato-lanceolata, subconvoluta.* Caulis glaber. Corolla *erecta, lato-campanulata, laciniis obtusis.* Filamenta *æqualia, glabra;* germine *prismatico-columnari duplo breviora,* antheras *adæquantia.* Capitellum stigmatosum *continuum, trifariàm trilobum;* stigmata *cristato-adnata, revoluta, canaliculata.* Nobis in Curt. mag. fol. 1135.

The first Flora, in which the Common Tulip has been included as one of the indigenous plants, is that of Caucasian Tartary by Mr. Marschall of Bieberstein; and the first Herbarium in this country, known to contain a native specimen, is that formed by the Chevalier Pallas, and now in the possession of Mr. Lambert. The species grows naturally on the borders of the Caspian Sea, and on the sides of the hills and in the plains of the country about Mount Caucasus.

The drawing of the present splendid variety was taken from a plant sent by Mrs. Liston, the Lady of the British Ambassador at the Porte, to Messrs. Whitley, Brames, and Milne, of the Fulham nursery.

It appears that this popular species was first brought from Constantinople to Vienna, about the middle of the sixteenth century; and that it has since gradually found its way over the rest of Europe. From the varieties bred from this species by the florists in Holland, arose the well-known Tulipimania that towards the middle of the seven-

teenth century seized nearly the whole of the Low Countries, and which increased into a state of delusive stock-jobbing of so general and destructive a nature as to require the interference of government to be put down.

Offsets produced laterally from the bulb. *Leaves* three, ovately lanceolate, somewhat convolute. *Stem* smooth. *Corolla* upright, broadly campanulate; segments obtuse. *Filaments* even, smooth, twice shorter than the prismatically columnar germen; equal to the *anthers*. *Stigma* continuous, trifarious, revolute, crested, channelled, not villously fringed as the nearly allied species from France, which we have given in the third volume of this work (fol. 204), under the title of the Agen Tulip. (TULIPA *oculus solis.)*

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HIBISCUS diversifolius.

Various-leaved Hibiscus.

MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ. *Jussieu gen.* 271. *Div. III.* **Stamina indefinita.** Fructus simplex multilocularis.

HIBISCUS. Suprà vol. 1. *fol.* 29.

H. *diversifolius*, foliis quinque trilobisve obtusis dentatis, superioribus oblongo-lanceolatis indivisis, pedunculis inermibus, caule petiolisque aculeatis. *Willd. sp. pl.* 3. 820.

Hibiscus diversifolius. *Jacq. ic. rar.* 3. *t.* 551. *coll.* 2. 307. *Willd. enum.* 2. 737.

Hibiscus ficulneus. *Cavan. diss.* 3. 141. *t.* 51. *fig.* 2; *(non aliorum).*

Caulis *arboreus, erectus,* 6-*pedalis, teres, uncialis diametri et ultra, ramosus, viridis, villosulus, medullâ albâ farctus, armatur* aculeis *brevibus pungentibus fuscescentibus rectisque.* Rami *virgati patent.* Fol. *alterna, longè petiolata, inferiora 5-loba, superiora 3-loba, summa indivisa et oblonga, acutiuscula, serrata, utrinque hirsutula, venosa, subtùs ad nervos hispida;* petiolis *teretibus, villosis armatisque sæpè subtùs raris aculeis.* Pedunculi *uniflori, solitarii, breves.* Cal. exterior *polyphyllus ex foliolis plus minus undecim, linearibus, acutis, rigidulis, hispidis, patulis:* interior *etiàm pilis albidis hispidus, longitudine exterioris, patulus, ad* $\frac{1}{3}$ *5-fidus; laciniis ovato-acutis.* Corollæ *amplæ et calyce multò longioris* petala *ex ungue angusto dilatata in laminam latissimam, rotundatam, obtusissimam, obsoletè crenatam, patentissimam, sulphuream cum basi atrosanguineâ.* Stam. *et* stigmata *tota atrosanguinea,* polline *sanguineo-miniato.* Stigma *5-fidum, capitatum, planum, pilosulum.* Germ. *hirsutum.* Caps. *ovata, 5-loc. polysperma.* Jacq. l. c.

We do not find this shrub recorded in either edition of the Hortus Kewensis; but it is enumerated in Sweet's *Hortus Suburbanus Londinensis,* and there stated to have been introduced in 1798. The specimen, from which the drawing has been made, was received from Mr. Herbert's collection at Spofforth, where the plant is cultivated in the hothouse. A native of the East Indies.

Stem arboreous, upright, attaining the height of about six feet, an inch or more in diameter, branching, green, subvillous, armed with short straight pungent brownish spines. *Branches* rodded, spreading. *Leaves* alternate, long petioled, lower ones five-lobed, those above three-lobed, uppermost undivided and oblong, rather pointed, serrate, somewhat shaggily furred on both sides, veined, hispid underneath at the nerves; *petioles* round, villous, and

often thinly beset with spines at the under side. *Peduncles* one-flowered, solitary, short. *Outer calyx* of about eleven (more or less) linear pointed stiffish hispid spreading leaflets: *inner one* likewise beset with hispid whitish hairs, the length of the outer, rather spreading, 5-cleft to about two thirds of its depth; *segments* ovate and pointed. *Corolla* large and much longer than the calyx: *petals* widened from a narrow unguis into a very broad rounded obtuse obsoletely crenated outspread primrose-coloured lamina with a dark blood-red base. *Stamens and stigma* black red, with *pollen* of a colour between vermilion and crimson: *stigma* five-cleft, capitate, flat, slightly furred. *Germen* shaggily furred. *Capsule* ovate, five-celled, many-seeded.

Syd. Edwards del. Pub. by J. Ridgway. 170 Piccadilly. July 1. 1819. Smith. Sc.

HÆMANTHUS pubescens.

Hairy Hæmanthus.

HEXANDRIA *MONOGYNIA.*

Nat. ord. NARCISSI. *Jussieu gen.* 54. *Div. II.* Germen inferum. AMARYLLIDEÆ. *Brown prod.* 296. *Sect. I.* Radix bulbosa. Flores spathacei, umbellati, rarò solitarii.

HÆMANTHUS. Suprà vol. 3. *fol.* 181.

H. *pubescens,* foliis oblongo-lanceolatis, undìque hirsutis, umbella fastigiato-rotundata, limbo staminibusque erectis. *Hort. Kew.* 1. 404.

Hæmanthus pubescens. *Lin. suppl.* 193. *Thunb. prod.* 59. *Willd. sp. pl.* 2. 26. *Hort. Kew. ed.* 2. 2. 208. *Nobis in Curtis's magaz. fol.* 1523 *in notâ.*

Hæmanthus albiflos. *Jacq. hort. schœnb.* 1. 31. *t.* 59. *Willd. sp. pl.* 2. 27. *Nobis in Curtis's magaz.* 1239. *Redouté liliac.* 338. *Hort. Kew. ed.* 2. 2. 208.

Folia *erectiùs opposita, subquaterna, oblonga, hirsutiùs villosa, ciliata, intensè virentia, subbreviora scapo, subsemipedalia latitudine subbiunciali, florum contemporanea.* Scapus *tereti-compressus, hirsutus, obliquus.* Spatha *inæquivalvis, umbellæ subæqualis, albido-membranacea, viridi-venosa, pubescens.* Flores *multi, conferti, albi, brevissimè pedicellati, erecti.* Cor. *infundibuliformis, angusta;* limbi laciniæ *erectæ, lineares, triplo longiores tubo.* Filamenta *corollam unâ tertiâ parte ferè exsuperantia:* anth. *fulvo-flavicantes, ovato-rotundæ.* Stylus *subcrassior subaltiorque staminibus, erectus;* stigma *levissimè trifidum, patulum.* Bacca *magnitudine ferè pisi, subrotunda,* 3-*loc., miniata, nitida; loculamentis monospermis.*

Native of the Capė of Good Hope. Introduced by the late Mr. Francis Masson in 1774. Requires to be kept in the greenhouse. Of easy culture.

The separation of *pubescens* and *albiflos* is clearly unfounded, as we have proved by the prototype specimen of the former in the Banksian Herbarium.

The drawing was taken from an imported plant which flowered at Mr. Lee's nursery, Hammersmith.

Leaves opposite, inclining to upright, about 4, oblong, rather shaggily furred, fringed at the edge, deep green, somewhat shorter than the scape, about half a foot in length, with the breadth of about two inches, full grown at the time the plant is in flower. *Scape* compressed, shaggily furred, slanting. *Spathe* unequally valved, about even with the umbel, whitishly membranous, green-veined, furred.

Flowers many, crowded, white, very shortly pedicled, upright. *Corolla* funnelform, narrow; *segments of the limb* upright, linear, three times the length of the tube. *Filaments* overtopping the corolla nearly by one third: *anthers* deep yellow, ovately rounded. *Style* rather thicker and taller than the filaments, upright; *stigma* very slightly trifid, rather spreading. *Berry* about the size of a pea, roundish, vermilion, shining, three-celled, with one-seeded cells.

Ciliaris and *toxicarius*, though left here in the last edition of the Hortus Kewensis, should certainly be referred to BRUNSVIGIA; a character and enumeration of which genus is to be seen in the third volume of this work (foll. 192, 193).

J. Curt. del

Pub by J. Ridgway 170 Piccadilly July 1 1819

Smith sc

TEMPLETONIA retusa.

Wedged-leaved Templetonia.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. VI.* PAPILIONACEÆ. *Brown gen. rem. in Flind. voy.* 2. 552.

TEMPLETONIA. Cal. ebracteatus, 5-dentatus, dentibus parùm inæqualibus. *Carina* oblonga. *Stam.* omnia connexa, antheris uniformibus. *Legumen* pedicellatum, plano-compressum, polyspermum. *Semina* strophiolata. *Brown in Hort. Kew. ed.* 2. 4. 269.

Templetonia retusa. *Brown in Hort. Kew. ed.* 2. 4. 269.
Rafnia retusa. *Venten. malmais.* 53.

Frutex erectus, ramosus: rami *angulosi, foliosi, cinereo-virentes, glabri.* Fol. *alterna, patula, petiolata, stipulata, cuneata, integerrima, leviter emarginata cum apiculo brevi inconspicuo, glabra, coriacea, plana, persistentia, suprà profundè viridia, infrà pallidiora:* petioli *articulati, decurrentes, corrugati, brevissimi, albicantes:* stipulæ *parti inferiori petioli adnatæ, erectæ, ovales, acutæ, membranosæ, subrufæ, brevissimæ, citò deciduæ.* Pedicelli *axillares, solitarii, uniflori, erecti, glabri, virentes, longitudine dimidium folii subæquantes, medio bibracteati.* Flores *erecti, punicei, magnitudine ferè* KENNEDIÆ rubicundæ: bracteæ *oppositæ, ovales, obtusæ, subciliatæ, brevissimæ.* Cal. *campanulatus, glaber, virens, limbo bilabiato:* labium superius *ovale, obtusum, emarginatum;* inferius *è segmentis* 3 *parùm profundis, inæqualibus, medio longiore acuto.* Pet. *brevi-unguiculata:* vex. *parùm reflexum, ovali-oblongum, obtusum cum apiculo inconspicuo, planum, striatum:* alæ *vexillo subæquilongæ, rectæ, oblongæ, obtusæ:* car. *alis obtecta nonnihilùmque brevior, è petalis duobus oblongis supernè incurvescentibus, obtusis.* Fil. *monadelpha:* anth. *parvæ, sulphureæ.* Germ. *lineare, glabrum, virens, brevi-pedicellatum:* stylus *filiformis, persistens,* stigmate *capitato.* Sem. 8-10.

A handsome species, first observed by Mr. Brown on the south-west coast of New Holland. Introduced by Mr. Peter Good in 1803.

The drawing was taken at Mr. Lee's nursery, Hammersmith; where it is cultivated in the greenhouse, and flowers about April and May.

A tallish branching upright *shrub: branches* angular, leafy, cinereously green, smooth. *Leaves* scattered, not spreading much, petioled, stipulate, cuneate, quite entire, slightly notched at the end where there is a small short inconspicuous point, smooth, coriaceous, flat, evergreen, deep green above, paler underneath: *petioles* jointed, decurrent, wrinkled, very short, whitish: *stipules* adherent to the lower

part of the petiole, upright, oval, pointed, membranous, with a slight tinge of red, very short, quickly deciduous. *Pedicles* axillary, solitary, one-flowered, upright, smooth, green, about equal to half the length of the leaf, with two bractes at the middle. *Flowers* upright, crimson, about the size of those of KENNEDIA *rubicunda: bractes* opposite, oval, obtuse, slightly fringed, very short. *Calyx* campanulate, smooth, green, with a bilabiate limb: *upper lip* oval, obtuse, notched at the end: *lower one* of three rather shallow unequal segments, of which the middle one is the largest and pointed. *Petals* shortly unguiculate: *vexillum* slightly reflex, ovally oblong, obtuse, with a small inconspicuous point, flat, streaked: *alæ* nearly the length of the vexillum, straight, oblong, obtuse, *carina* enclosed by the alæ and rather shorter, consisting of two oblong obtuse petals, inbowed at the upper part. *Filaments* monadelphous: *anthers* small sulphur-coloured. *Germen* linear, smooth, green, shortly pedicled: *style* filiform, persistent; *stigma* capitate. *Seeds* 8-10.

We have relied chiefly upon Ventenat's work for the description of the species; not having ourselves had the opportunity of inspecting the flowers while fresh.

Hart del. Pub by I Ridgway 170 Piccadilly July 1 1819 Smith sc

CULLUMIA ciliaris.

Ciliated Cullumia.

SYNGENESIA *POLYGAMIA FRUSTRANEA.*

Nat. ord. CORYMBIFERÆ. *Jussieu gen.* 177. *Div. II.* Recept. nudum. Sem. papposum. Flores radiati.

CULLUMIA. Recept. favosum. *Semina* glabra. *Pappus* nullus. *Cal.* monophyllus: foliolis imbricatis tectus. *Brown in Hort. Kew. ed.* 2. 5. 137.

C. *ciliaris*, foliis ovatis glabris imbricatis bifariàm ciliato-spinosis: spina terminali reflexa. *Brown in Hort. Kew. ed.* 2. 5. 137.

Berckheya ciliaris. *Willd. sp. pl.* 3. 2273.

Rohria ciliaris. *Thunb. prod.* 140. *Act. soc. nat. scrut. hafn.* 3. 99.

Gorteria ciliaris. *Lin. sp. pl. ed.* 2. 2. 1284.

Carlina foliis imbricatis oblongis reticulatis et in aculeum aduncum desinentibus. *Burm. afr.* 151. *t.* 54. *fig.* 1.

Aculeosa æthiopica, atractylidis facie. *Pluk. amalth.* 51. *t.* 354. *fig.* 3.

Frutex: rami *loricato-foliosi, supernè paniculatìm divisi, propè florem cum calyce arachnoideo-pubescentes, lactescentes.* Fol. *sparsa, a dimidio superiore squarroso-patentia, a disco ad medium usque adnata, ovato-lanceolata, glabra, convexa, margine depressa cartilaginea, spinis alterno-bifariàm biseriatis ciliata, spinâ terminali longiori reflexâ.* Flores *ramulorum terminales, solitarii, lutei, diametro biunciali v. majori.* Cal. *folioso-tectus,* limbo *membranaceo multifido, segmentis ovato-lanceolatis planis villoso-ciliatis spinâ erectâ præfixis.* Discus floris *calyci æqualis,* radio *recurvo-patente subtùs obsoletè purpurascente* 2-3-*plo brevior.* Flosc. disci *hermaphroditi,* limbo *ultra medium* 5-*fido erecto acuto glabro,* tubo *duplo breviore villosiusculo:* stig. 2 *revoluta, flava:* germ. *oblongum glabrum alveolo proprio immersum.* Flosc. radii *neutri, plurimi, unciales v. ultrà, sublanceolato-ligulati, sulcato-striati,* 4-*dentati.* Recept. *planum, ex paleis ciliatis coadunatis favosum.*

CULLUMIA was detached from BERCKHEYA by Mr. Brown in the last edition of the Hortus Kewensis. It has smooth seed and no pappus, while in BERCKHEYA the seed is villous, and endowed with a pappus which is either chaffy or else partly chaffy and partly bristly. Both genera have an alveolate or honeycombed receptacle, and thus differ from GORTERIA and GAZANIA where the seeds are not lodged in distinct cavities formed by the chaffy bractes that beset the surface of the receptacle.

The very curious manner in which the foliage is disposed in this species for the protection of the branches and its armature consisting of a double edging of fine spines that point alternately upwards and downwards, seem to have im-

pressed the fancy of Linnæus with peculiar admiration; and he terms the structure "*stupendum naturæ artificium*."

The shrub belongs to the greenhouse department, is native of the Cape of Good Hope, and was introduced by Mr. Francis Masson in 1774. It has never before, as far as we know, been figured from a living sample.

Branches loricately leaved, paniculately divided at the top, at the upper part araneously furred as well as the calyx, milky. *Leaves* imbricant, spreading at the upper half, growing to the stem by the disk at the lower half, ovately lanceolate, smooth, convex with a depressed cartilaginous border, edged round with a double row of fine spines pointing alternately in two different directions, the terminal spine longer and reflectent. *Flowers* at the end of the branches, solitary, yellow, two inches across or more. *Calyx* covered with leaves; *limb* membranous, multifid; *segments* ovately lanceolate, flat, villously fringed, with an upright spine at the end. *Disk of the flower* even with the calyx, 2-3 times shorter than the recurvedly spreading *ray*. *Florets of the disk* fruitful; *limb* 5-cleft to below the middle, upright, pointed, smooth; *tube* twice shorter, slightly villous. *Stigmas* revolute, deep yellow. *Germen* oblong, smooth, lodged in its proper cell. *Florets of the ray* barren, an inch or more in length, sublanceolately ligulate, striated, 4-toothed. *Receptacle* flat, honeycombed, the lodges or cells being formed by the coalition of the fringed chaffy bractes.

Hart. del. Pub. by J. Ridgway 170 Piccadilly Aug. 1. 1819 Smith. sc.

MARANTA zebrina.

Stripe-leaved Maranta.

MONANDRIA *MONOGYNIA.*

Nat. ord. CANNÆ. *Jussieu gen.* 62.
CANNEÆ. *Brown prod.* 307; *in obs.*
MARANTA. Anthera simplex, filamento adnata. *Stylus* petaliformis. *Stigma* subtrigonum. *Sem.* 1. *Roscoe in linn. trans.* 8. 339.

M. *zebrina*, foliis a supino pruinatis vittato-discoloribus.
Maranta zebrina. *Curtis's magaz.* 1926. *Sweet hort. sub. londin.* 1.

(Herba *perennis:* radix *tuberosa).* Fol. *radicalia, quadrifaria, fasciculata; exteriora (primordialia) interioribus duplo breviora, petiolis 2 aphyllis suffulta;* petioli 1-2-*pedales, erecti, canaliculati, basi equitantes, apice quàm basi 3plo angustiores, lætè virides, margine pallidiores;* lamina *majorum petiolo* articulo ½-1-*unciali, cylindraceo, viridi-purpureo sejuncta,* 2½ *pedes longa, medio* 8 *uncias lata, primùm erecta, convolutiva, demùm horizontalis paululùm reflexa, elliptica, undulata, obtusa, margine basin versùs auriculatam crispatulo;* suprà *velutina, atro-viridis, maculis parallelis obliquè transversis æquidistantibus multò pallidioribus alternis trans medium interruptis ad costam et marginem confluentibus vittata, venis tenuissimis simplicibus approximatis pallidis lineata;* infrà *sericea, purpurea, unicolor, ad marginem parùm dilutior.* Scapus *cylindraceus, lævis, ad basin digiti crassitudine, ex axillis petiolorum aphyllorum quibus paulò longior.* Spica *composita, terminalis ovata, compacta, ovi anatini magnitudine;* bracteæ communes *numero indefinitæ, densissimè imbricatæ, equitantes:* extima *maxima, suborbiculata, basi angustata v. cuneiformis, undique sub lente pube brevi conferta obsita, coriacea, venis valdè approximatis à basi ad marginem radiantibus trajecta;* interiores *ovatæ v. ellipticæ, purpurascentes, venis parallelis longitudinalibus ad apicem præcipuè extùs pubescentem confluentibus lineatæ, sensìm angustiores et pallidiores, flores in 2 fasciculos 2-3-floros (qui antici sunt et postici quoad axim communem) sejungentes;* propriæ *ternæ, lineari-lanceolatæ, pallidè purpureæ: unica interior libera, 2 exteriores, quarum, margine altero cum eo bracteæ floris proximi conferruminato, septulum flores invicèm separans efformatur.* Perianthium *superum, unciale;* exterius *(bracteæ 3 cum germine connatæ?) ad basin 3-partitum, laciniis obtusis lineari-lanceolatis, æqualibus, impubibus, marginibus approximatis et parùm incurvis tubum simulantibus, interioris longitudine;* interius *tubo gracili, laciniis suis duplo longiore, sursùm (anthesi peractâ) sensìm angustato, intùs lineis 2 elevatis hirsutis ab imâ basi ferè ad apicem auricularum labelli (quibus oppositæ) tendentibus notato:* limbus *duplex, æstivatione convolutivâ;* exterior 3-*partitus, laciniis lineari-lanceolatis, obtusis, paulò irregularibus, 2 lateralibus, alterâ, quoad axin partialem inflorescentiæ (fasciculorum), posticâ;* interior 3-*partitus, laciniis paulò supra seriem exteriorum connatis, 2 lateralibus, obovatis, posticis, ad basin marginis anterioris ultrà labelli paulò productis, quàm exteriores quibus alternant brevioribus; unicâ (labelli)*

anticâ (tubo modicè torto, laterali, et laterales tum antici fiunt et postici), inter lacinias laterales exteriorum, concavâ, cucullatâ? æstivatione styli partem liberam cum stigmate involventi, intrà marginem lateralium, quasi serie alterâ, insertâ, hinc denti auriculiformi (stamen sterile labello connatum) paulò suprà faucem tubi marginatâ, indè filamento connatâ v. liberâ, tum utroque margine auriculatâ; stamen *laciniâ posticâ serici exterioris insertum;* filam. *tenue, lanceolatum, diaphanum, erectum, styli longitudine, labelli margine altero hinc connatum v. liberum, margine antherifero multò crassiore et paululùm labellum versùs torto;* anth. *paulò infrà apicem dextram filamenti adnata, elliptica, æstivatione ad styli apicem appressa et antè labelli expansionem* pollinem *album sphæricum carnosum mutuâ pressione sæpè subangulatum emittens, unilocularis, septo longitudinali in loculos binos parallelos semidivisa.* Germ. *inferum 3-loc.;* loculamenta *ovulo unico erecto;* stylus *filiformis, impubis, faucem usque cum tubo ante filamentum accretus, suprà faucem liberus, valdè incrassatus, paulò compressus, glaberrimus, albidus, transversus, apice obliquâ horizontali;* stigma *terminale, infundibuliforme, obliquum, margine incrassatum, æstivatione compressum, posteà apertum, ab antherâ reversum: plerumque pollen in humero styli stigmati proximo dimittitur; bis autem in ipsâ stigmatis cavitate observavi.* Anthesis *à fasciculis posticis (axi communi proximis) spicæ infimæ incipit, et ordine simili sursùm pergit; fasciculorum posticorum floribus emarcidis, anteriores eandem normam sequuntur.* Lindley. MSS.

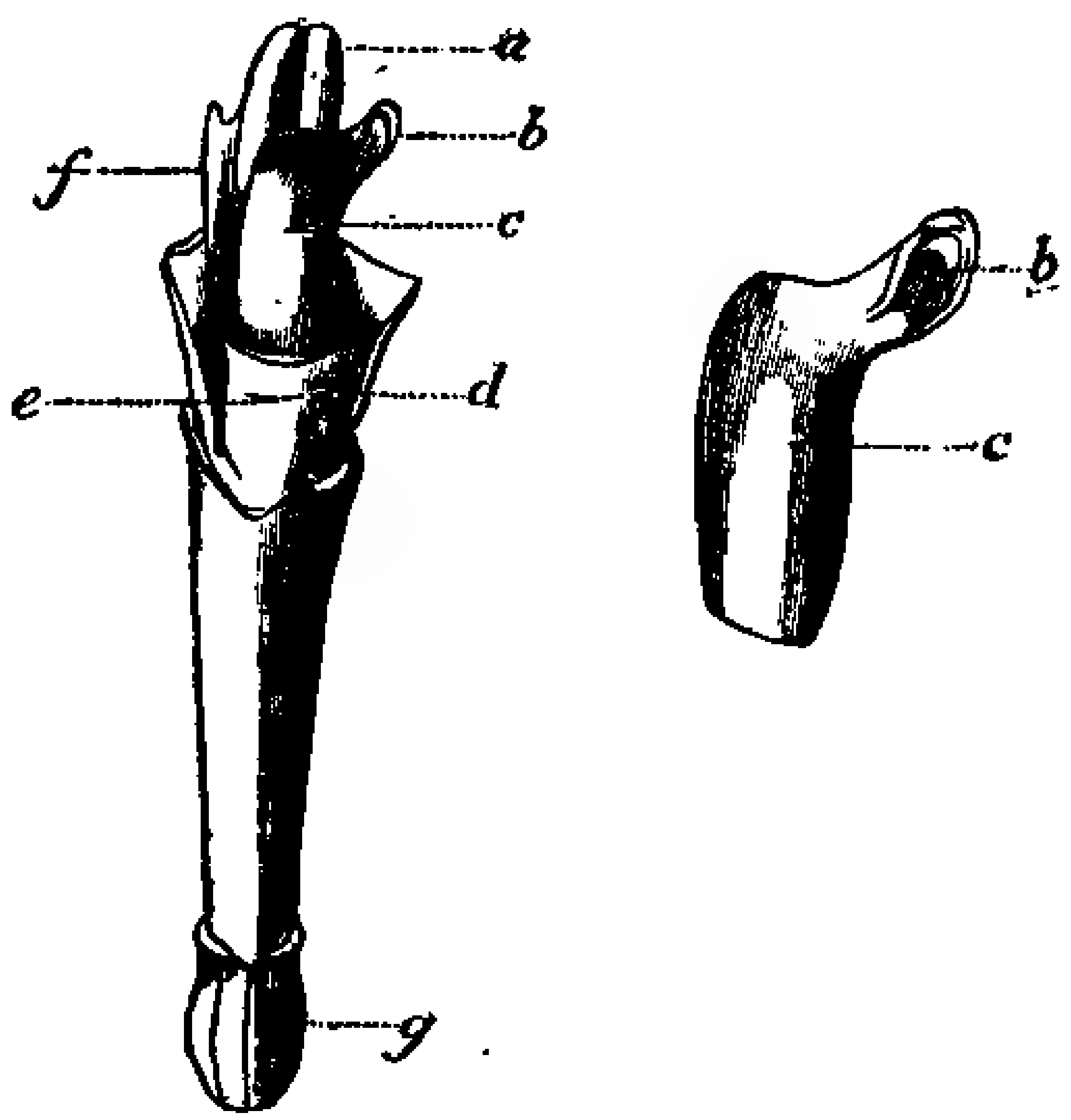
Introduced from the Brazils in 1815. We have no doubt that the differences between the species previously combined under Maranta and the present, will suggest to some botanist, who may feel himself sufficiently versed in the study of the natural tribe to which our plant belongs, the propriety of detaching it under a new generic denomination. In the mean time we present our readers with a most ingenious and elaborate description by Mr. Lindley, junior, of Catton, near Norwich.

The drawing was taken from a fine specimen which flowered in the hothouse of Mr. Kent, at Clapton; to which a very liberal access is afforded for the purposes of science.

A perennial herbaceous plant, with a tuberous root. *Leaves* radical, quadrifarious, disposed in fascicles, the outer ones (those which were first produced) twice as short as the interior and supported by two leafless footstalks; *footstalks* 2-3 feet long, erect, channelled, equitant at the base, three times narrower at the upper extremity than at the lower, bright green with a paler margin; *lamina* of the largest leaves separated from the footstalk by a cylindrical greenish purple joint from ½ an inch to an inch in length, about 2¼ feet long and 8 inches broad in the middle, at first erect and rolled up longitudinally, afterwards horizontal and a little bent downwards, elliptical, undulated, obtuse, a little curled at the margin towards the base which is dilated on each side of the footstalk; the *upper side* velvety, dark green, banded with parallel, obliquely transverse, equidistant, broad stripes, alternately interrupted across the middle, much paler than the rest of the leaf and confluent at the margin and rib, traversed in the direction of the bands by numerous, very narrow, simple, close-set, pale veins; the *under side* silky, purple, whole-coloured, a little paler towards the edge. *Scape* cylindrical, smooth, naked, of the thickness of a finger at the base, arising from the axillæ of

the leafless stalks, than which it is a little longer. *Spike* compound, terminal, ovate, compact, the size of a duck's egg: *common bracteæ* indefinite in number, closely imbricated equitant: the *exterior* largest, roundish, narrowed towards the base or wedge-shaped, covered with dense inconspicuous hairs, coriaceous, traversed by close-set veins radiating from the base to the margin; *interior* ovate or elliptical, purplish, furnished with parallel longitudinal veins becoming confluent at the tip, which is pubescent especially on the outside, gradually narrowing and paler, separating the flowers into 2 parcels, each of which is 2 or 3 flowered, and anterior and posterior with respect to the common axis of inflorescence; *partial bracteæ* 3, linear-lanceolate, palish purple, one interior and separate, 2 exterior of each of which one edge becomes confluent with that of the bracteæ of the nearest flower, so as to form a partition completely separating each flower from its neighbour. *Perianthium* superior, double, an inch long: *outer* (formed of three bracteæ connate with the germen?) divided to its base into 3 obtuse linear-lanceolate equal naked segments with edges approximated and a little curved inwards so as to resemble a tube as long as the inner perianthium; *inner* with a slender tube twice as long as its segments, gradually attenuated towards its upper end when the function of the limb has ceased, traversed in the inside by 2, elevated, hairy lines running from its very bottom almost as far as the top of the auricles of the labellum to which they are opposite; *limb* double with a convolutive æstivation: *outer* 3-parted with linear lanceolate obtuse rather irregular segments, of which 2 are lateral and the other posterior with respect to the partial axis of inflorescence (of the fascicles); *interior* 3-parted: segments united a little above those of the outer limb: two lateral, posterior, obovate, extended at the base of their front edge a little beyond that of the labellum, shorter than the outer segments with which they alternate: one *(labellum)* anterior (by a slight twist of the tube appearing lateral, and then the 2 lateral divisions become anterior and posterior,) between the lateral laciniæ of the outer limb, concave, hoodshaped?, in æstivation involving the free part of the style and stigma, inserted within the margin of the lateral segments as if in a different series, on one side having a rounded denticulation (or sterile stamen connate with the labellum) a little above the orifice of the tube, on the other side united to the filament or separate and then furnished with an auricle on both sides. *Stamen* inserted into the posterior segment of the outer series: *filament* thin, lanceolate, diaphanous, erect, the length of the style, either united on one side to the margin of the labellum or distinct from it, that side which supports the anther being much thicker than the other and somewhat twisted towards the labellum; *anther* affixed a little below the right hand side of the apex of the filament, elliptical, in æstivation pressed against the top of the style and shedding the pollen before the expansion of the labellum, one-celled, half-divided by a longitudinal partition into two parallel cells: *pollen* white, spherical, fleshy, often angular by mutual pressure of the particles. *Germen* inferior 3-celled; *cells* with one erect ovulum; *style* filiform, naked, united with the tube, as far as its orifice, in front of the filament, beyond the orifice disengaged, much thickened, very smooth, whitish, somewhat compressed, transverse, with an oblique horizontal summit; *stigma* terminal, funnel-shaped, oblique, thickened at the margin, during æstivation compressed, afterwards open and turned away from the anther; it usually happens that the pollen is dropped on the shoulder of the style nearest the stigma; but we have twice observed it in the cavity of the stigma. *Expansion* commences in the posterior

fascicles (those next the common axis) of the lowest part of the spike, and proceeds in the same order upwards: after the flowers of the posterior fascicles are withered, those of the anterior begin to open in a similar manner.—*Lindley.*



Drawn by J. Lindley, Esq.

a The anther. *b* The stigma. *c* The top of the style. *d* One of the lateral appendages. *e* The base of the labellum. *f* The filament. *g* The germen.=All magnified.

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Syd. Edwards. del. Pub by. J. Ridgway [illegible] 170. Piccadilly Aug. 1. 1819. Smith. sc.

INDIGOFERA australis.

Botany-bay Indigo.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. V.* Cor. irregularis papilionacea. Legum. 1-loc. 2-valv. Frutices aut herbæ; fol. simplicia aut ternata aut rariùs digitata; stipulæ nunc subnullæ nunc conspicuæ imo petiolo adnatæ aut ab eodem distinctæ.=PAPILIONACEÆ. *Brown in app. to Flind. voy.* 2. 552.

INDIGOFERA. Suprà in notis appendicis vol. 3.

I. *australis*, foliis pinnatis glabris multijugis oblongis, racemis folio brevioribus vexillis glabris leguminibus patentibus. *Willd. sp. pl.* 3. 1235.
Indigofera australis. *Venten. malmais.* 45. *Hort. Kew. ed.* 2. 4. 355.

Frutex *ramosus, supernè foliosus, glaber, ramis alternis, patentibus, brevibus.* Fol. *alterna, horizontali-reflexa, petiolata, impari-pinnata,* 3-6-*juga,* foliolis *oppositis distantibus brevi-petiolatis, ovalibus et lanceolatis, glanduloso-apiculatis, subtùs obsoletè pubescentibus:* pet. *articulati, ad lentem villis appressis obsoletè pubescentes, glandulâ parvulâ purpurascente pari singulo foliolorum interpositâ:* stipulæ *à petiolo distinctæ, rectæ, lineares, brevissimæ, citò deciduæ.* Racemi *axillares, solitarii, suberecti, subbreviores folio,* pedunculo *ad lentem obsoletè pubescente.* Flores *alterni, proximi, horizontales, pedicellati, roseo-rubentes, suaveolentes:* bracteæ 2-3 *ad basin pedicellorum, brevissimæ, purpureo-membranaceæ.* Cal. *patentissimus, saturatè purpureus, villis nigricantibus obsoletè pubescens, sub vexillo truncatus, sub carinâ inæquali-5-dentatus.* Pet. *unguiculata:* vex. *erectum, rotundatum, emarginatum, striatum, maculâ candidâ ad basin:* alæ *vexillo æquilongæ, reflexæ, oblongæ, obtusiusculæ:* car. *alis aliquantulùm brevior utrinque juxta supra unguem calcarata.* Fil. *diadelpha:* anth. *erectæ, glanduloso-apiculatæ, pallidè luteæ.* Germ. *lineare, compressum, glabrum:* stylus *geniculatus, filiformis,* stigmate *capitato.* Leg. *reflexum, cylindricum, ob medullam fungosam monospermo-3-4-loculare.* Sem. *nigricantia, angulis 4 obsoletè notata, ad lentem impresso-punticulata.*

A species from New South Wales. Introduced by Sir Joseph Banks in 1790; and now pretty common in our greenhouses, in which it thrives with little care.

A smooth branching shrub, leafy at the upper part: *branches* alternate, spreading. *Leaves* alternate, horizontally reflectent, petioled, unevenly pinnate, 3-6-paired, *leaflets* opposite, widish apart, short-petioled, oval and lanceolate, with a small glandular apex, obsoletely furred underneath: *petioles* jointed, furred with a short close-pressed pubescence scarcely visible but through a magnifying glass, bearing a small purplish gland between each pair

of leaflets: *stipules* detached from the petiole, straight, linear, very short, soon dropping off. *Racemes* axillary, solitary, inclining to upright, rather shorter than the leaf; *peduncle* obsoletely furred. *Flowers* alternate, near, horizontal, pedicled, rosy-red, sweet: *bractes* 2-3 at the base of the pedicles, very short, membranous, purple. *Calyx* outspread, of a full purple colour, obsoletely furred with blackish villi, under the vexillum truncate, under the carina unequally five-toothed. *Petals* unguiculate: *vexillum* upright, rounded, emarginate, streaked, with a white spot at the base: *alæ* as long as the vexillum, reflex, oblong, bluntish: *carina* a little shorter than the alæ, spurred on each side just above the unguis. *Filaments* diadelphous: *anthers* upright, with a glandular apex, pale-yellow. *Germen* linear, compressed, smooth: *style* filiform, kneed; *stigma* capitate. *Pod* reflex, cylindrical, with a thick fungous pith, by which it is divided into 3-4 one-seeded cells. *Seeds* blackish, faintly four-cornered, when observed through a magnifier pitted with small thickset hollow dots.

We have relied chiefly for the above description on the one given by M. Ventenat in French.

a

b

Hart del.

Pub. by J. Ridgway 170 Piccadilly Aug.t 1 1819

Smith sc.

HEPATICA americana.
American Hepatica.

POLYANDRIA *POLYGYNIA.*

Nat. ord. Ranunculaceæ. *Decand. syst. nat.* 1. 129. *Div. I.* Ranunculaceæ Veræ. *Tribus II.* Anemoneæ.

HEPATICA. Involucrum 3-folium flori approximatum 1-florum, calyciforme, foliis integris; *petala* 6-9 duplici triplicive serie disposita. *Stam.* et *germ.* indefinita. *Sem.* ecaudata.

Herbæ *perennes montanæ vernales;* rad. *fibrosæ;* fol. *radicalia petiolata, plurima è gemmis radicalibus squamosis orta, simplicia,* 3-7-*lobata, coriacea;* scapi *plurimi, radicales* 1-*flori.* Cupulæ *minimæ serrato-filamentosæ adsunt ad basin germinum observante cl. Schkuhrio.* Decand. l. c. 215.

H. *americana,* foliis cordatis trilobis, lobis rotundatis obtusis integerrimis: petiolis scapisque pilosissimis.

Hepatica triloba. *β. obtusa. Pursh amer. sept.* 2. 391.—*β. americana. Decand. loc. cit.* 216. *Nuttall gen.* 2. 23.

Anemone Hepatica. *Michaux bor. amer.* 1. 119. *Bigelow fl. boston.* 135.

Anemone *foliis trilobis integerrimis. Gron. virg. ed.* 2. 84.

Hepatica. *Gron. virg.* 61.

Hepatica is at present constituted by a group of three species, and has been very recently detached from Anemone; from which it is easily distinguishable by having the involucre near to the flower, not at a distance from it, and the leaves of the involucre entire, not variously carved.

We have no hesitation in recording the american plant as a distinct species from the european *triloba,* to which it has been generally appended for a variety. The lobes of the leaves are rounder and less pointed in the american plant, the flower-stem and leaf-stalks shaggily furred, the whole altogether smaller and of different appearance.

Found, according to Mr. Pursh, in woods, and on hill-sides from Canada to Carolina; varying with blue and with purple flowers.

The drawing was taken at the nursery in Sloane Square, from a specimen recently imported by Messrs. Frasers. It has been kept in a garden-pot and sheltered under a garden-frame; but we have no doubt it will do perfectly well in the open ground.

Syd Edwards. del. Pub. by J. Ridgway 170 Piccadilly. August. 1819. Smith. Sc.

ERYSIMUM diffusum.

Alpine Hedge-mustard.

TETRADYNAMIA *SILIQUOSA.*

Nat. ord. CRUCIFERÆ. *Jussieu gen.* 237. *Div. I.* Fructus siliquosus. Stylus nullus.

ERYSIMUM. Siliqua tetragona. *Semina* emarginata. *Cotyledones* incumbentes. *Stigma* capitatum, nunc emarginatum lobulis patentibus. *Cal.* clausus. *Brown in Hort. Kew. ed.* 2. 4. 115.

E. *diffusum*, foliis lanceolato-linearibus integerrimis v. paucidentatis: pilis bipartitis, unguibus calyce longioribus; laminis obovato-oblongis, siliquis erectiusculis elongatis; stigmate bilobo; stylo brevissimo. *Brown loc. cit.*

Erysimum diffusum. *Ehrh. beitr.* 7. 157. *Willd. sp. pl.* 3. 512. *Hort. Kew. ed.* 2. 4. 115.

Erysimum canescens. *Roth catal. bot.* 1. 76.

Cheiranthus alpinus. *Linn. mant.* 93. *Jacq. austr.* 1. 48. *t.* 75. *Hort. Kew.* 2. 394.

Eruca sylvestris angustifolia. *Lob. ic.* 205.

Tota planta scabriuscula est. Rad. *albida, à* 3 *ad* 10 *uncias longa,* 2 *ad plures lineas crassa, lignosa, biennis, modò recta descendit, modò inter saxa variè distorquetur, et primo anno sola promit folia radicalia.* Caules *strictè eriguntur, aut solitarii, aut rariùs pauci, ab* 1 *ad* 3 *pedes alti, modò simplicissimi, modò supernè ramosi, subangulati, tenues, firmi, parùm scabri.* Fol. *sunt lanceolato-linearia, pilis brevissimis et vix conspicuis modicè exasperata, sessilia, inordinatè alternantia, magis minùsve conniventia, acutaque. Hæc caulem antè florescentiam satis numerosa decorant; sed brevi post illam arescunt, pereuntque, adeò quidem ut sæpè sub florescentiæ finem caulis vel ad ramos racemosve usque foliis nudatus spectetur. In aliis autem individuis sunt angustissima, verè linearia, integerrima, fermè incana, et velutì convoluta. In aliis multò sunt latiora, magis virentia, et inferiora obitèr atque raritèr dentata.* Caules *et* rami *producuntur in racemos longissimos.* Flores *fermè inodori.* Calycis *glauci glabri et parùm compressi foliola* 2 *opposita deorsùm gibba sunt.* Pet. *lutea in unguem desinunt longitudine calycis.* Stig. *obsoletiùs* 2*-fidum est.* Siliquæ *tenues,* 4*-gonæ, et erectiusculæ, modò pollicares aut sesquipollicares; modò bipollicares et filiformes.* Jacq. l. c.

Native of the South of Europe. Cultivated by Miller, in the Physic Garden at Chelsea, in 1733.

The whole plant is roughishly furred. The hairs are described by Mr. Brown as biparted. *Root* woody and biennial. *Stems* straight, stiff, generally solitary, sometimes more than one, from one to three feet high, sometimes simple, at others branching at the upper part, slightly an-

gular, slender, firm, a little roughened. *Leaves* lanceolately linear, beset with very short and inconspicuous hairs, but not very closely, sessile, scattered, more or less connivent and pointed. *Stem*, before flowering, beset with numerous leaves, which dry up and perish soon after the flowers go off, so that towards the end of its blossoming it is sometimes quite naked from the root to the raceme. In some individuals the leaves are very narrow, exactly linear, quite entire, nearly gray, and appearing convoluted or rather rolled longitudinally on each side upon themselves. In others they are much broader, greener, and the lower ones slightly and loosely indented. *Racemes* extending to a great length. *Flowers* with scarcely any scent. *Calyx* glaucous, smooth, slightly compressed; 2 *opposite leaflets*, gibbous at the base. *Petals* sulphur-coloured; unguis longer than the calyx: *lamina* obovately oblong. *Stigma* 2-lobed. *Style* very short. *Pods* siliquose, inclining to upright, lengthened.

The drawing was taken from a fine specimen, which flowered in the nursery of Messrs. Colville, King's Road, Chelsea; where that of the CULLUMIA *ciliaris* of the last fasciculus was also taken; a circumstance which we omitted to mention in the proper place.

Hart del

Pub. by J. Ridgway 170 Piccadilly Aug. 1 1819

Smith sc

ERYTHRINA carnea.
Flesh-coloured Coral-tree.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. V.*
ERYTHRINA. Suprà vol. 4. *fol.* 313.

E. *carnea*, foliis ternatis glabris, caule arboreo subaculeato, calycibus campanulatis truncatis. *Hort. Kew.* 3. 8.
Erythrina carnea. *Hort. Kew. ed.* 2. 4. 251. *Willd. sp. pl.* 3. 912.
Erythrina americana. *Mill. dict. ed.* 8. *n.* 2.
Corallodendron triphyllum americanum non spinosum foliis magis acuminatis, flore pallidè rubente. *Trew ehret.* 2. *t.* 8.

Caulis 7-*pedalis, aculeatus.* Calyx *truncatus uti in* ERYTHRINA herbaceâ. Vexillum *carneum, ferè rectum, latere deflexum, compressum, calyce sextuplo longius.* Alæ *pallidæ, oblongæ, altero latere rectæ, calyce vix longiores.* Carina *pallida, dipetala;* petalis *basi rotundatis, dein subulatis, longitudine alarum.* Dryander in sched. banksianis.

We are obliged to Mr. Herbert, for the drawing of this scarce shrub, which flowered in the hothouse at Spofforth, in the early part of last spring. The species was introduced by Dr. Houston, from Vera Cruz, before 1733.

Having had no opportunity of taking a description of the plant ourselves; we shall subjoin a few notes concerning the species from Mr. Dryander's manuscripts in Sir Joseph Banks's library.

Stem about 7 feet high, thorny. *Calyx* truncate, as in ERYTHRINA *herbacea. Vexillum* flesh-coloured, nearly straight, bent down at the sides, compressed, six times longer than the calyx. *Alæ* pale, oblong, with one straight side, scarcely longer than the calyx. *Carina* pale, of two petals rounded at the base, then tapered subulately, of the same length as the alæ.

Hart del

Smith sc

Pub by J. Ridgway 170 Piccadilly (Aug 1 1840)

VIOLA pubescens. β. *eriocarpon.*
Woolly-fruited furred-leaved Violet.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Cisti. *Jussieu gen.* 294. *Div.* Genera Cistis affinia fructû trivalvi valvis seminiferis, sed definitè staminifera.

VIOLA. *Suprà vol.* 1. *fol.* 54.

Obs. Capsula *cartilaginea, obtusè trigona,* valvis *disco medio seminiferis, post dehiscentiam contractilibus, nisû elastico semina demittentibus:* semina *seriebus trinis disposita;* testa *colorata fragilis,* hilum *carunculatum,* embryo *erectus planus, centralis,* albumen *carneum:* cotyledones *rotundatè ovales,* radicula *cylindrica.* Nuttall gen. 1. 147; (ex anglico).

Div. Caulescentes.

V. *pubescens,* villoso-pubescens; caule erecto supernè folioso, foliis latocordatis, stipulis oblongis apice serratis. *Pursh amer. sept.* 1. 174.

Viola pubescens. *Hort. Kew.* 3. 290. *ed.* 2. 2. 47. *Willd. sp. pl.* 1. 1166. *Nuttall gen.* 1. 150.

Viola pensylvanica. *Michaux bor-amer.* 2. 149.

(β) *eriocarpon;* fructû densè villoso, stipulis minoribus. *Nuttall loc. cit.*

Folia *aut pube copiosâ obducta aut ferè glabra, subserrata:* stipulæ *ovatæ, maximam partem integræ:* stylus *compressus,* stigma *subglobosum penicillis duobus lateralibus, erostellatum.* Fructus glaber. β. eriocarpon. Fructû *lanâ brevi albâ obtecto*; stipulis *minoribus.* Nuttall loc. cit; (ex anglico).

The American Violets have received particular attention from Mr. Nuttall, in his "Genera of North American Plants;" in which work he has enumerated twenty species, and in a great measure recast their characters. It is observed by that botanist, that all those of America, like the *canina* of these parts, continue through the summer to produce flowers without petals, which are succeeded by fruit; and that in all the caulescent species, with the exception of the anomalous *concolor,* the fruit so produced is generally situated near to the root, and not unfrequently underground. The Viola *striata,* which flowers in the vicinity of Philadelphia till June, begins to bear apetalous flowers in July, in consequence, as Mr. Nuttall expresses it, of the elevated temperature. He is of opinion that the genus, as now defined, requires reduction; and that it should be removed from the order of Cisti, and made the basis of a new one. Viola, strictly defined, is almost equally divided between Europe and the temperate portion of North America.

Viola *pubescens* grows in shady woods among rocks, particularly those of limestone, from New York to Virginia. Introduced in 1772 by Mr. William Young. Hardy.

The present variety has a densely woolly capsule, and somewhat smaller stipules than β, where the capsule is without pubescence. Both are abundant about Philadelphia.

Perennial caulescent. *Leaves* much furred or nearly naked, slightly serrate. *Stipules* ovate, with their principal part entire. *Style* compressed: *stigma* nearly globular with two lateral pencils of pubescence, rostellate.

The drawing was taken from an imported plant, which flowered in May, at Mr. Fraser's nursery in Sloane Square.

Hart. del.

Pub by J. Ridgway 170 Piccadilly Aug. 1. 1819.

Sansᵐ. sc.

CERBERA fruticosa.

Rosy-flowered Cerbera.

PENTANDRIA *MONOGYNIA.*

Nat. ord. APOCYNEÆ. *Jussieu gen.* 143. *Div. III.* Germen simplex, fructus baccatus aut rariùs capsularis.

CERBERA. (Contorta). *Cal.* 5-partitus, patens. *Cor.* infundibuliformis, tubo clavato, fauce 5-angulari 5-dentatâ, limbo magno 5-partito obliquo. *Anth.* conniventes. *Stylus* 1; *stig.* 2-lobum. *Drupa* magna, latere sulcata ac 2-punctata, fœta nuce osseâ 4-valvi 2 loc. 2-spermâ. *Arbores; fol. alterna; flores sæpè terminales, subcorymbosi.* Juss. loc. cit. 149.

C. *fruticosa,* dichotoma; foliis oppositis, lato-lanceolatis; corymbis terminalibus; drupis obliquè urceolatis, hiantibus. *Roxb. MSS; (ex anglico verso).*

Cerbera fruticosa. *Carey hort. beng.* 19.

Frutex *speciosissimus.* Caulis *brevis, non longè supra basin se dividens, indèque in ramos ramulosque multiplices teretes glabros dichotomos atque rectos subdividendus.* Fol. *opposita, sæpè ab invicèm remota, brevè petiolata, oblonga ad lanceolata, integra, glabra, acuminata,* 5-6-*uncialia latitudine* 2-3-*unciali.* Stipulæ *interfoliaceæ, acutæ.* Corymbi *primò terminales, deìn dichotomiarum intermedii evadentes:* partiales *subtrichotomi breves.* Flores *ampli, roseo-rubentes ore tubi saturatiùs colorato, subodorati.* Bracteæ *opposita, triangulares, acutæ.* Cal. 5-*phyllus,* foliola *oblonga, glabra, persistentia, glandulâ glabrâ præfixa.* Cor. tubo *ferè biunciali, gracili, fauce tumidâ, ore piloso:* limbi *laciniis obovato-oblongis, æqualibus.* Fil. *brevia, fundo faucis inserta:* anth. *sagittatæ inclusæ.* Germ. 2, *unumve bilobum, superiora, hinc ubi invicèm contingant villosa, fissurâ utrinque squamulâ subulatâ operta: lobi germinave simplicia bilocularia, singulum ovulo unico dissepimenti medio annexo.* Stylus *tubum ferè æquans:* stig. *majusculum, apice bilobo.*

The drawing was taken in May, at the nursery of Messrs. Whitley, Brames, and Milne, Fulham, where the plant is cultivated in the hothouse. It has been only recently introduced by Captain Craigie. The species was first observed by Dr. Roxburgh, whose account of it we subjoin from his manuscript in the Banksian Library.

This elegant shrub was brought from Pegu (its native country) to the Botanic Garden at Calcutta, where it is in constant blossom. The flowers are like those of VINCA *rosea,* but larger and faintly fragrant. Altogether it is one of the most ornamental shrubs in the garden.

Stem short, soon dividing and subdividing into many straight round smooth dichotomous branches and branch-

lets. *Leaves* opposite, often remote, short-petioled, from oblong to lanceolate, entire, smooth, acuminate, 5-6 inches long, 2-3 broad. *Stipules* interfoliaceous, acute. *Corymbs* terminal, when they first appear, but long before all the blossoms expand a branchlet shoots forth from each side, and places them in the fork; divisions subtrichotomous and short. *Flowers* large, mouth of the tube lively red, the rest a bright pink, somewhat fragrant, and highly ornamental. *Bractes* opposite, triangular, acute. *Calyx* 5-leaved; *leaflets* oblong, smooth, permanent, with a smooth gland at the top. *Corolla* funnelform; *tube* nearly 2 inches long, slender, even, except at the faux, where it swells considerably, orifice highly coloured and pubescent; segments of the *limb* obovate, oblong, equal. *Filaments* short, inserted round the bottom of the faux: *anthers* sagittate enclosed within the faux. *Germens* 2, or single and 2-lobed, superior, villous on the sides where they meet, a small subulate scale covering the fissure on each side; lobes or germens singly 2-celled, with one *ovulum* in each, attached to the middle of the partition: *style* nearly as long as the tube: *stigma* large with a 2-lobed apex, which is lodged in the dome formed by the converging of the anthers.

Hart. del.
Pub. by J. Ridgway 170 Piccadilly Sepr. 1. 1819.
S. Watts sc.

OXYLOBIUM arborescens.

Tall Oxylobium.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. IV.* Corolla irregularis papilionacea. Stamina distincta, aut rarò basi coalita. Legumen uniloculare bivalve. *Arbores aut frutices; folia simplicia aut ternata aut impari-pinnata.*=PAPILIONACEÆ. *Brown in app. to Flind. voy.* 2. 552.

OXYLOBIUM. Calyx profundè quinquefidus, subbilabiatus. *Corolla* papilionacea, *carina* compressa longitudine *alarum* æquantium *vexillum* explanatum. *Stylus* adscendens. *Stigma* simplex. *Legumen* polyspermum, ventricosum, ovatum, acutum. *Brown in Hort. Kew. ed.* 2. 3. 9.

O. *arborescens,* foliis lineari-lanceolatis, bracteis apicis pedicelli persistentibus, corymbis confertis, leguminibus calyce vix longioribus. *Brown in Hort. Kew. ed.* 2. 3. 10.

A tall shrub, first observed by Mr. Brown in Van Diemen's Island. Introduced in 1805.

The drawing was taken in April last, from a plant in the greenhouse at the nursery of Messrs. Colville, in the King's Road, Chelsea.

The genus has been defined by Mr. Brown in the last edition of the Hortus Kewensis; and is distinguished among the decandrous section of its papilionaceous co-ordinates, by a deeply fivecleft faintly bilabiate *calyx;* a *corolla* with a compressed *carina* the length of the *alæ,* which are as long as the flatly expanded *vexillum;* an ascending *style;* simple *stigma;* and a polyspermous, ventricose, ovate, pointed *pod.*

We are not aware of any published representation of the species. It is known by its linearly lanceolate leaves, the persistence of the bractes at the top of the pedicles, closely flowered corymbs, and by pods scarcely longer than the calyx. We have not been enabled to add any further particulars concerning it; as we missed the opportunity of examining the blossom. Three of the genus are recorded in the Hortus Kewensis.

Hart del.

Pub by J. Ridgway 170 Piccadilly Sep. 1. 1819

Smith sc.

CALLISTEMON rigidum.
Stiff-leaved Callistemon.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. MYRTI. *Jussieu gen.* 322. *Div. I.*
MYRTACEÆ. *Brown in app. to Flind. voy.* 2. 546.

CALLISTEMON. *Stamina* (numerosa): *filamentis* distinctis, elongatis; *antheris* incumbentibus. *Capsula* trilocularis, polysperma, connata et inclusa calycis tubo incrassato basi adnato (ramo). *Brown MSS.*

Div. Filamentis puniceis.

CALLISTEMON *rigidum,* foliis linearibus (lanceolato-linearibusve) planis acutissimis mucronatis lævibus, ovariis pubescentibus, capsulis distinctis. *Brown MSS.*

Metrosideros linearis. *Willd. enum.* 513; *(non verò* METROSIDEROS linearis *ejusd. sp. pl.* 2. 955).

A genus first proposed by Mr. Brown to be detached from METROSIDEROS, in his general remarks on the Botany of New Holland, and now defined from his manuscripts, which were communicated with the same liberality we have ever experienced from that gentleman.

CALLISTEMON is at present constituted by about 10 o. 11 australasian species; and consists of 2 sections; one distinguished by crimson filaments, the other by yellow.

Our shrub is native of New Holland.

We cannot do better, for our readers, than extract the remarks of Mr. Brown on the natural order to which the plant belongs.

" MYRTACEÆ. This is one of the most extensive " tribes in Terra Australis, in which above 200 species have " been already observed, and where the order is also more " strikingly modified than in any other part of the world. " It is very generally spread over the whole of Australia, but " its maximum appears to be in the principal parallel.

" Of EUCALYPTUS alone nearly 100 species have been al-" ready observed, most of these of trees, many of them of " great and some of enormous dimensions. EUCALYPTUS " *globulus* of Labillardière and another species peculiar to " the south end of Van Diemen's Island, not unfrequently " attain the height of 150 feet, with a girth near the base of " from 25 to 40 feet. In the colony of Port Jackson there " are also several species of great size, but none equal to

" those of Van Diemen's Island: and no very large trees of " this genus were seen either on the south coast or in the " æquinoctial part of New Holland. Mr. Caley has ob- " served within the limits of the colony of Port Jackson " nearly 50 species of Eucalyptus, most of which are dis- " tinguished, and have proper names applied to them, by the " native inhabitants, who from differences in the colour, tex- " ture, and scaling of the bark, in the ramification and ge- " neral appearance of these trees, more readily distinguish " them than botanists have as yet been able to do. Euca- " lyptus, although so generally spread over the whole of " Terra Australis, and so abundant as to form at least four- " fifths of its forests, is hardly found beyond this country. I " am acquainted with one exception only, in an additional " species which is said to be native of Amboyna.

" Next to Eucalyptus in number, is the beautiful genus " MELALEUCA, of which upwards of 30 Australian species " have already been observed, exclusive of TRISTANIA, CALO- " THAMNUS, BEAUFORTIA, and an unpublished genus which I " separate from it. The maximum of Melaleuca exists in " the principal parallel, but it declines less towards the " south than within the tropic, where its species are chiefly " of that section which gradually passes into CALLISTEMON, a " genus formed of those species of METROSIDEROS that have " an inflorescence similar to that of Melaleuca, and distinct " elongated filaments. With the exception of 2 species, ME- " LALEUCA *Leucadendron*, and M. *Cajeputi*, the genus Me- " laleuca appears to be confined to Terra Australis.

" LEPTOSPERMUM, of which nearly 30 Australian species " have been observed, exists also in New Zealand and in the " Moluccas. In Terra Australis its maximum is decidedly " in the principal parallel, and like Melaleuca, it is much " more abundant in the southern regions than within the " tropic.

" BÆCKIA, to which I refer IMBRICARIA of Sir J. Smith, " as well as the opposite-leaved Leptospermums, is also an " extensive Australian genus, having its maximum in the " principal parallel, extending like the two former genera to " the highest southern latitude, and hardly existing within " the tropic; one species has however been found in New " Caledonia, as that from which the genus was formed is " a native of China."

Hart. del. Pub. by J. Ridgway 170 Piccadilly Sept. 1. 1819. J. Watts. sc.

MUSCARI ciliatum.

Clusius's Grape-Hyacinth.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Asphodeli. *Jussieu gen.* 51. *Div. III.* Flores spicati. Radix bulbosa. Corolla basi tubulosa.

Asphodeleæ (includentes Asparagos pleros que Jussieuii). *Brown prod.* 1. 274.

MUSCARI. *Cor.* ventricoso-tubulosa, *fauce* coarctatâ crenis sex brevissimis marginatâ. *Nobis in Curtis's mag. fol. vers.* 1185. *Cætera omnia ut in* Hyacintho; [*vide infrà fol.* 398.]

M. *ciliatum* corollis campanulato-cylindricis, semisexfidis, pedunculis fructiferis longissimis horizontalibus, foliis ciliatis. *Marsch. Bieb. taur. cauc.* 1. 284; (*sub* Hyacintho ciliato).

Hyacinthus ciliatus. *Marsch. Bieb. loc. cit.* *Cyrill. neap.* 2. 22. *t.* 10.

Hyacinthus sarmaticus. *Pall. ind. taur.* (*fide Marsch. Bieb.*).

Hyacinthus romanus. *β. Lamarck encyc.* 3. 102. *n.* 8.

Hyacinthus comosus byzantinus. *Clus. hist.* 1. 180.

Quaterna, quina, aut sena interdum habet folia, humi ut plurimum fusa et expansa, nonnunquam procumbentia duntaxat, oblonga, Hyacinthi primi Mathioli (Muscari comosi. *Nob.*) *foliis valdè similia, latiore tamen mucrone prædita, et in lateribus veluti tenui lanugine obsita, præsertim infimâ parte, circà eorum exortum, ingrati gustûs et nauseam facilè excitaturi: ex horum medio, pedalis, nonnunquam major, nascitur caulis, teres et rotundus, nudus, intùs fungosus, foris viridis lævisque, quem à medio ad summum sexageni plerumque aut plures ambiunt flores oblongiusculi, oris in sex laciniolas divisis, sex staminulis purpureis intùs prædili, inodori, initio candicantes, deindè cum marcescere incipiunt, fusci et inelegantis coloris: pediculi quibus flores nituntur, initio brevissimi sunt, deindè paulatìm marcescentibus floribus excrescentes,* 4 *unciarum aut ampliorem longitudinem adquirunt, sic ut totus caulis suis floribus ita expansis onustus, aspergillum non minus referre videatur, quam Hippuris quoddam genus. Caulis suprema pars cum florum pediculis purpurascit: incipit florere ab imis: trigona deindè capitula fert, exigua, pro plantæ amplitudine, in quibus paucum semen, interdum in singulis capitulis unicum duntaxat, rotundum nigrum* Muscari comosi *semine minus continetur, interdum nullum, nam ut plurimum capitula inania sunt, nec arbitror unquam plura collegisse ex unicâ, quam habebam plantâ, ternis seminibus, aut quandò plurima quinis aut senis: radix rotunda, bulbosa, multis candicantibus tunicis constat, exteriore subfuscâ, et basi multis fibris albis fultâ.* Clus. loc. cit.

We find no mention of the introduction of this rare species into our collections in any of the botanical records; nor do we believe any live specimen of it has been seen in this country until the present was received by Mr. Griffin from Moscow. The drawing was taken at the garden at South Lambeth, in April last. It comes pretty near to

Muscari *comosum*, the well-known Tassel-Hyacinth, but is very distinct from Scilla *romana* of which it has been deemed a variety by Lamarck; there the corolla is six-parted, here the divisions are exceedingly shallow. Clusius, whose excellent description we have extracted entire, tells us, that roots of our plant were received at Vienna, from Constantinople, in 1578. It is now known to be indigenous of Caucasian Tartary, the Ukraine, and Puglia. We have seen a specimen, in the Banksian Herbarium, that was gathered, by the late Dr. Patrick Russell, in Syria.

Muscari is distinguished from Hyacinthus by the constriction of the throat of the corolla, and the six very shallow and sometimes nearly obsolete lobules forming the mouth of the same.

Bulb tunicated, with brownish integuments. *Leaves* 4-6, 6-9 inches long, lorate, tapered, obtuse, villously edged, especially towards the bottom. *Scape* round, a foot or more in height: *raceme* terminal, subpyramidal, loosely many-flowered; *peduncles* purplish, divaricate, at first only one or two inches long, ultimately acquiring double that length or more, stiff. *Corolla* rather smaller than that of the Tassel-Hyacinth, at first white, then passing into a dull brownish purple colour before it decays. In its native place the scapes, with their peduncles, become quite dry and rigid in the autumn, and are blown about the fields by the winds that prevail at that season. *Filaments* wholly adnate to the corolla: *anthers* purple. *Style* the length of the stamens; *stigma* trigonal, slightly pubescent. *Capsule* oblong, trigonal: *seeds* black, roundish.

Syd. Edwards del. Pub. by J. Ridgway 170 Piccadilly Sept. 1. 1819. S. Watts sc.

FUMARIA nobilis.

Great-flowered Fumitory.

DIADELPHIA *HEXANDRIA.*

Nat. ord. PAPAVERACEÆ. *Jussieu gen.* 235. *Div. II.* Stamina definita.

FUMARIA. Suprà vol. 1. *fol.* 50.

Div. Corollis unicalcaratis.

F. *nobilis*, caule simplici, racemo terminali, bracteis oblongis, acutis, flore brevioribus, foliis pinnatis, foliolis tripartito-laciniatis. *Willd. sp. pl.* 3. 858.

Fumaria nobilis. *Linn. syst. veg.* 639. *Jacq. hort. vindob.* 2. 53. *t.* 116. *Hort. Kew.* 3. 1. *ed.* 2. 4. 239. *Andrews's reposit.* 614. *Curtis's magaz.* 1953.

Radix, *initio bulbosa et subtùs cava, in florente plantâ, solida.* Folia *radicalia, plura, spithamæa, bipinnata, glabra, ex glauco virentia; costâ communi media pentagona et anticè sulcata; lateralibus subtrigonis, alternis; foliolis subrotundis, obtusis, lobatis et incisis.* Caules *etiam egrediuntur plures, angulati, inanes, tribus plerùmque foliis ornati. Quartum summum folium, bracteæ instar, florem ex alâ emittit, à spicâ remotum.* Bracteæ *inferiores sunt magìs lobatæ, et foliis propterea similiores; superiores sunt ovatæ et integræ.* Flores *albi,* limbo *luteo cum* faucis *prominentis apice nigricante, odorem spirant ad Primulam veris accedentem, et eadem sunt magnitudine in horto quam* FUMARIA bulbosa, *structurâque simili, sed labiis brevioribus magisque concavis, et calycis foliolis membranaceis albentibus et ex lanceolatâ figurâ in setam desinentibus. Faciliùs tamen, distinguitur spicâ valdè obtusâ et depressâ, caulibusque et petiolis angulatis.* Jacq. loc. cit.

Native of Siberia. Introduced by Mr. John Grœfer in 1783. A hardy perennial plant.

Root tuberous. *Radical leaves* 7-9, a span long, bipinnate, smooth, glaucous green; midrib sulcate and angular; leaflets roundish, blunt, lobed and carved. *Stems* several, slanted, angular, fistular. *Cauline leaves* 4, sessile, compound. *Raceme* inclining one way, very obtuse. *Bractes* ovately lanceolate, entire. *Flowers* smelling something like those of the Cowslip, twice the size of those of FUMARIA *bulbosa,* white, with a yellow limb and with the top of the tongue of the faux nearly black; lips neither notched, nor serrate. *Calyx* minute, toothed.

The drawing was taken at Mr. Knight's nursery, in the King's Road, Fulham.

Hart del. Pub. by J. Ridgway. 170 Piccadilly Sept. 1. 1819 Smith sc.

ACACIA alata.

Wing-stalked Acacia.

POLYGAMIA *MONŒCIA.*

Nat. ord. Leguminosæ. *Jussieu gen.* 345. *Div. I.* Corolla regularis. Legumen multiloculare, sæpiùs bivalve, dissepimentis transversis, loculis monospermis. Stamina distincta. *Arbores aut frutices; folia abruptè pinnata.*=Mimoseæ. *Brown in append. to Flind. voy.* 2, 551.
ACACIA. Suprà vol. 2. fol. 98.

Div. foliis simplicibus.

A. *alata*, caule bifariàm alato, foliis decurrentibus uninerviis spinula terminatis; margine interiore dente unico glandulifero, stipulis spinosis, capitulis pedunculatis subsolitariis. *Brown in Hort. Kew. ed.* 2. 5. 464.

Native of the south-west coast of New Holland; where it was first observed by Mr. Brown. Introduced in 1803 by Mr. Peter Good.

The drawing was taken from a plant which flowered in the greenhouse, at Mr. Colville's nursery in the King's Road, Chelsea.

The only species, yet found in New Holland, which has a winged stalk. We know of no representation of it before the one now published.

Distinguished from its congeners by a two-edged winged *stem*, decurrent one-nerved *leaves* terminated by a small prickle and having a single gland-bearing tooth at their inner margin, by prickly stipules and stalked flower-heads, which are mostly solitary.

Hart. del. Pub. by J. Ridgway 170 Piccadilly, Sep.^t 1. 1819 Smith sc.

ROSA Banksiæ; *β. flore pleno.*

Lady Banks's Rose; double-flowered variety.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. Rosaceæ. *Jussieu gen.* 334. *Div. II.* Rosæ.
ROSA. Suprà vol. 1. *fol.* 46.

Div. Fructibus subglobosis.

R. *Banksiæ,* ramis inermibus; stipulis liberis caducis. *Lindley MSS.*
Rosa Banksiæ. *Hort. Kew. ed.* 2. 3. 258. *Curtis's magaz.* 1954.
(α) flore simplici.
Rosa banksiana. *Abel chin.* 160.
(β) flore pleno. *Suprà.*

Rami *inermes, impubes, debiles, filiformes, altero latere rubicundi.* Fol. *erecta, internodiis duplo longiora;* stipulæ *lineares, petiolo distinctæ, citissimè deciduæ, margine parcè glandulosæ, pilis simplicibus inarticulatis ciliatæ;* petioli *nudi v. rarò pilosi, inermes,* foliola 1-5; *plana, oblongo-lanceolata, obtusa, sæpiùs undulata, simplicitèr serrata, utrinque omninò impubia, nisi ad basin costæ ubi densè sunt pilosa: lateralia sessilia, basi paulò obliqua: terminale pedicellatum.* Flores *nutantes,* umbellis *3-5-floris terminales, albescentes, odorem debilem gratissimum spirantes;* bracteæ *minimæ, citissimè emarcidæ et deciduæ;* pedunculi *omninò nudi, gracillimi, calycem versùs paulò incrassati;* calycis tubus *nudus, depresso-globosus, hìnc viridis, indè rubro coloratus,* sepala (foliola) *ovata, apiculata, omnia simplicia, extùs nuda, intùs densè tomentosa, petalis duplo breviora;* pet. *emarginata, integra, exteriora paulò recurva;* stamina *et apex* receptaculi petalorum *auctione monstrosa evadunt;* germina *plurima, monostyla, hìnc (intùs) plana, subnuda, indè convexa, pilis longis simplicibus densissimè vestita:* ovulum *latere interiore appensum, puncto annexionis unico conspicuo;* styli *liberi, arctè pilosi, sursùm incrassati, ultra tubum parùm exserti:* stigma *planum incrassatum.* Lindley MSS.

Native of China. Introduced in 1807 by Mr. William Kerr. The single-flowered variety was found by Dr. Abel, growing on the walls of Nanking.

The drawing was taken from a specimen with which we were favoured by Sir Joseph Banks, in honour of whose Lady the species has been named. The shrub is cultivated in the garden at Spring-Grove in the open air, being planted at the foot of the wall of a hothouse, where it has attained the height of 20 feet, or more, and flowers abundantly every year about June or July. At present rare; and seldom seen in bloom at any of the nursery-gardens; where it is usually kept in a pit or frame.

Branches thornless, smooth, weak, filiform, reddened at one side. *Leaves* erect, twice the length of the internodes or intervals; *stipules* linear, distinct from the petiole, quickly deciduous, scantily glandular at the edge, fringed with simple jointless hairs; *petioles* naked, or now and then furred, thornless; *leaflets* 1-5, flat, oblong-lanceolate, obtuse, generally undulate, simply serrate, quite smooth on both sides, except at the base of the midrib, where they are thickly furred: lateral ones sessile, a little slanted at the base; terminal one pedicled. *Flowers* nodding, terminal by 3-5-flowered umbels, whitish, diffusing a mild but exceedingly grateful fragrance; *bractes* very small, withering rapidly and falling off; *peduncles* quite smooth, very slender, but little thickened towards the calyx; *tube of the calyx* smooth, depressedly globular, green on one side, reddened on the other, *leaflets* ovate pointedly tipped, all simple, smooth on the outside, thickly tomentose on the inside, twice shorter than the petals; *petals* emarginate, entire, outer a little recurved; the *stamens* and the apex of the *receptacle of the petals* grow out into petals and form the double flower; *germens* many, one-styled, one side (the inner) flat, nearly smooth, the other convex and very densely furred with long simple hairs, *ovulum* appended by the inner side, with one only conspicuous point of annexation; *styles* free, close-haired, thickened upward, protruding but little beyond the tube: *stigma* flat, thickened.

We are obliged to Mr. Lindley for the excellent description, of which the above is the english version.

Hart. del.

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HYACINTHUS amethystinus.

Spanish Hyacinth.

HEXANDRIA *MONOGYNIA.*

Nat. ord. ASPHODELI. *Jussieu gen.* 51. *Div. III.* Flores spicati. Radix bulbosa. Corolla basi tubulosa.

ASPHODELEÆ (includentes Asparagos plerosque Jussieuii). *Brown prod.* 1. 274.

HYACINTHUS. Cor. infera, tubulosa, cis medium sexfida, fauce solutâ, laciniis patentibus. *Stam.* inclusa tubo; *fil.* ex toto fermè adnata. *Stylus* triquetro-subulatus; *stigma* apex obtusus. *Caps.* ovato-trigona, triloc. *Sem.* plura, subrotunda.

Bulbus *tunicatus, indusiis membranaceis.* Folia *radicalia, subcarnosa, variè lorata.* Scapus *teres, carnosus. In* H. orientali *germen poris tribus subtilibus stillâ stante limpidâ coronatis apice perforatum.* Nob. in Curtis's magaz. 937, et 1185, vers. fol.

H. *amethystinus,* corollis basi cylindricis.

Hyacinthus amethystinus. *Lin. sp. pl. ed.* 2. 1. 454. *Mill. dict. ed.* 8. *n.* 5. *Hort. Kew.* 1. 458. *ed.* 2. 2. 282. *Willd. sp. pl.* 2. 167; *(excluso Pall. it.) ejusd. enum.* 1. 377. *Redouté liliac.* 14.

Hyacinthus hispanicus. *Lamarck encyc.* 3. 191.

Hyacinthus angustifolius. *Usteri ann. st.* 2. 18.

H. oblongo cæruleo flore minor. *Rudb. elys.* 2. 27. *fig.* 8.

H. hispanicus minor, orientalis facie. *Park. par.* 120.

H. minor hispanicus. *Clus. app. alt.*

Bulbus *magnitudine Olivæ.* Fol. *plurima* (6-7) *æquantia scapum v. breviora,* $\frac{1}{4}$ *v.* $\frac{1}{3}$ *unciæ lata, ligulata, attenuata, canaliculata, subtùs striata, sub anthesin laxata, recumbentia.* Scapus *9-uncialis ad pedalem;* racemo *multifloro, laxo, sparso, erectiusculo floribus nutantibus, cæruleis:* pedicelli *recurvati, longitudine florum v. breviores:* bracteæ *membranaceæ, subcoloratæ, lineari-lanceolatæ, angustæ, æquantes pedicellos.* Cor. *oblongo-campanulata, subsemuncialis, teres diametro pennæ corvinæ satìs majore, nec fundo tumida ac in* H. orientali, *supernè obsoletè hexagona angulis saturatiùs cæruleis, pro* $\frac{1}{3}$ *ferè longitudinis suæ sexfida;* limbus *pallidior tubo, æqualis, recurvo-divaricatus,* lac. *obovato-rotundis, exterioribus incrassato-apiculatis, interioribus retusis.* Stam. *immersa tubo, dimidio ferè breviora corollâ, alternè longiora;* fil. *pro* $\frac{3}{4}$ *partibus adnata, subulata, conniventia:* anth. *erectæ, à dorso appensæ, subrotundæ,* polline *sulphureo.* Pist. *staminibus 3 brevioribus subæquale:* germ. *subrotundum, obsoletè 3-lobum, 6-lineatum, Sinapeos granum vix æquans:* stylus *subulato-continuus, strictus, subtriqueter, ad lentem 6-striatus:* stig. *punctum simplex obtusum.*

Cultivated by Miller, in 1759, in the Chelsea Garden; but we believe long since lost to our collections; never having met with a specimen of it in any, till favoured with the present by Mr. Sabine, secretary to the Horticultural Society, in whose garden it flowered in May last. Native of Spain.

The HYACINTHUS *amethystinus* of Pallas, a russian plant, usually quoted as a synonym of the present species, is very distinct; belongs to MUSCARI, and comes near to *botryoides*. It has been recorded in the Flora Taurico-caucasica of Mr. Marschall of Bieberstein, by the title of HYACINTHUS *pallens*. As at present defined, we know of only two species of this genus, viz. the subject of the present article, and the Garden Hyacinth (H. *orientalis)* familiar to every one.

Bulb about the size of an olive. *Leaves* several (6-7) equal to or shorter than the scape, $\frac{1}{4}$-$\frac{1}{3}$ of an inch broad, ligulate, tapered, channelled, streaked beneath, flaccid and recumbent when the plant is in flower. *Scape* from 9 inches to a foot in height. *Raceme* openly manyflowered, scattered, somewhat upright; *flowers* nodding, blue; *pedicles* recurved, sometimes as long as the flowers, sometimes shorter; *bractes* membranous, somewhat coloured, narrow, linearly lanceolate, even with the pedicles. *Corolla* oblong, campanulate, about half an inch in length, round, of a considerably larger diameter than the tube of a crow-quill, not enlarged at the bottom as in the Garden Hyacinth, faintly hexangular at the upper part, with angles of a deeper blue, sixcleft for about $\frac{1}{3}$ of its length; *limb* of a paler colour than the tube, even, widespread, recurved, with obovately rounded segments, outer ones with a small thick point, inner ones retuse. *Stamens* deepishly enclosed within the tube, nearly as short again as the corolla, alternating in length; *filaments* adnate for three fourths of their length, subulate, connivent: *anthers* upright, suspended from the back, with sulphur-coloured *pollen*. *Pistil* about equal to the three shorter stamens: *germen* scarcely so large as a mustard-seed, roundish, faintly 3-lobed, marked with 6 lines: *style* subulately continuous, stiff, slightly 3-edged, when viewed through a magnifier sixstreaked: *stigma* a simple blunt point.

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NYCTANTHES Arbor tristis.

Square-stalked Nyctanthes or *Night-Jasmine.*

DIANDRIA *MONOGYNIA.*

Nat. ord. JASMINEÆ. *Jussieu gen.* 104. *Div. I.* Fructus capsularis. JASMINEÆ. *Brown prod.* 1. 520.

NYCTANTHES. *Cal.* tubulosus, integer. *Cor.* tubulosa limbo 5-lobo, lobis obliquis obcordatis. *Anth.* subsessiles intrà tubum. *Caps.* 2 ovatæ compressæ erectæ, hìnc planæ et in unam coadunatæ, indè paululùm convexæ, 1-loc. 2-spermæ non dehiscentes; *sem.* ovata plana, infimo loculo annexa. *Rami 4-goni; pedunc. axillares et terminales multiflori, pedicellis 3-floris 2-bracteatis; flores plures abortivi.* Juss. l. c.

Nyctanthes Arbor tristis. *Lin. sp. pl. ed.* 2. 1. 8. *Willd. sp. pl.* 1. 35. *Vahl enum.* 1. 25. *Hort. Kew. ed.* 2. 1. 15.

Parilium Arbor tristis. *Gært. sem.* 1. 234. *t.* 57. *fig.* 2.

Scabrita triflora. *Linn. mant.* 37. Scabra. *syst. veg.* 152. *Vahl symb. bot.* 2. 28. *Gært. sem.* 2. 265. *t.* 138.

Sephalica. *Asiat. research.* 4. 244.

Manjapumeram. *Rheede mal.* 1. 35. *t.* 21.

Arbor tristis. *Clus. exot.* 225 *et* 279.

Arbuscula caule *erecto;* ramis *numerosis undique sparsis, novellis 4-gonis.* Fol. *opposita, brevè petiolata, cordata, proxima floribus oblonga, acuminata, interdùm integra, interdùm grossissimè serrata v. interdùm imâ parte angulosa, scabra, 3-5-uncialia latitudine 1-3-unciali.* Inflor. *foliosa, terminalis, brachiato-paniculata, umbellulis terminalibus sæpè 5-floris constituta.* Flores *numerosi, suaveolentissimi, manè expandentes, vesperè cadentes;* tubus *aurantiaco-flavescens,* limbus *candicans.* *Umbellularum* involucra *4-phylla:* foliola *opposita, obcordata, sessilia.* Cal. *campanulatus ore aliquantulùm coarctatus levissimèque 5-dentatus, villosus, emarcescens.* Cor*æ*. tubus *cylindricus longitudine limbi:* limbus *explanatus, 5-8-partitus, contortus,* lac. *triangularibus v. obliquè truncatis, emarginatis.* Fil. *ferè obsoleta:* anth. *2-lobæ, tubo inclusæ.* Germ. *superum, compressum:* stylus *æquans tubum:* stig. *capitatum, glandulosum.* Caps. *amplitudine unguis pollicis, obcordata v. suborbiculata, compressa, 2-valvis, ab apice transversè dehiscens.* Sem. *exalbuminosa.* Roxb. MSS. (ex anglico verso.)

The drawing of this rare and curious plant was taken at the nursery of Messrs. Whitley, Brames, and Milne, in June last, when we believe it flowered for the first time in this country, although introduced by Sir Joseph Banks as far back as the year 1781, if not long before, by Miller. It is usually kept in the tan-bed of the hothouse; but Mr. Sweet thinks, that if it were kept in a cooler situation there would be a better chance of ensuring its flowering. The following account of the species is taken from Dr. Roxburgh's manuscripts.

Of what country the species is native, I know not; for on this coast (that of Coromandel), I have never found it but cultivated; and it is always raised from seed, which may be the reason we have two varieties of this most delightfully fragrant plant. In our gardens it is found in the state of a large shrub or small tree. Flowers nearly the whole year round: in Bengal only during the rains. The flowers exhale an odour something like that of fresh honey; they open at sun-set and drop off at sun-rise. Destitute of blossom, the shrub has but an indifferent appearance. The orange-coloured tubes of the corolla dye a most beautiful buff, in various shades according to their preparation and the mode of conducting the process, but unfortunately no means have been yet devised to render the colour durable.

Trunk erect: *bark* scabrous: *branches* numerous, spreading in every direction; young shoots 4-sided, angles formed by 4 ligneous cordlike nerves that run beneath the bark. *Leaves* opposite, short-petioled, cordate, those next the flowers oblong, pointed, sometimes entire, sometimes very coarsely serrate, and sometimes with the lower parts angular, rough, 3-5 inches long, 1-3 broad. *Inflorescence* may be best described as a large, terminal, leafy, brachiated panicle, composed of small, generally 5-flowered terminal umbellets. *Flowers* numerous, of middling size: *tube* orange-coloured: *limb* white. *Involucre of the umbellets* 4-leaved; *leaflets* obcordate, opposite, sessile. *Calyx* campanulate, mouth a little contracted and slightly 5-notched, downy, withering. *Corolla: tube* cylindric, length of the calyx: *limb* spreading, 5-8-parted, contorted (slanting circularly); *segments* obliquely truncate, scalloped. *Filaments* nearly obsolete: *anthers* 2-lobed, sessile within the tube. *Style* length of the tube: *stigma* glandular, capitate. *Capsule* the size of a man's thumb-nail, obcordate or nearly orbicular, compressed, 2-celled, 2-valved, opening transversely from the apex: *seeds* one in each cell, compressed, &c., as described by Gærtner, only that I have never discovered any thing like an albumen.

The species is still the only one of the genus; may be at once distinguished from Jasmine by the fruit being a dry capsule instead of a fleshy berry.

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VACCINIUM amœnum.
Broad-leaved Whortle-berry.

OCTANDRIA *(DECANDRIA. Pursh.) MONOGYNIA.*

Nat. ord. Ericæ. *Jussieu gen.* 159. *Div. II.* Germen inferum aut semiinferum.
Ericeæ. *Brown prod.* 1. 557.
VACCINIUM. Suprà vol. 4. *fol.* 302.

Div. Foliis deciduis.

V. *amœnum*, racemis bracteatis, corollis subcylindraceis, foliis ellipticis subserrulatis deciduis: venis subtùs villosiusculis. *Hort. Kew.* 2. 12.
Vaccinium amœnum. *Willd. sp. pl.* 2. 353. *Andrews's reposit.* 138. *Hort. Kew. ed.* 2. 2. 358. *Pursh amer. sept.* 1. 287.
Vaccinium disomorphum; *var.? Michaux bor. amer.* 1. 232.

Frutex: rami *glabri, teretes; ramuli villosiusculi, parùm compressi.* Fol. *alterna, subpetiolata, lato-elliptica, acuta, suprà glaberrima, subtùs circà venas villosiuscula, tenuissimè subserrulata, sesquiuncialia:* petioli *brevissimi, villosiusculi.* Racemi *in ultimis ramis plures, alterni, simplices, patentes, foliis duplo breviores, sessiles, secundi, multiflori:* pedicelli *villosiusculi, tri- vel quadrilineares:* bracteæ *oblongæ, acutæ, glaberrimæ, plerùmque incarnatæ;* unica *in rachi communi ad exortum singuli pedunculi partialis, 2 v. 3 lineas longa, ovata, concava;* duæ *oppositæ in pedunculo partiali paulò suprà basin, patentes, reliquis paulò breviores.* Cal. *monophyllus, 5-fidus, glaberrimus, sordidè rubescens, sesquilinearis: laciniæ ovatæ, latæ, obtusiusculæ.* Cor. *extùs ex albo rubicunda, monopetala, subcylindrica, parùm ventricosa, calyce 4plo longior, ore 5-fido: laciniæ ovatæ obtusiusculæ.* Fil. 10, *margini receptaculi levitèr affixa, subulata, plana, erecta, villosiuscula, calyce paulò longiora:* anth. *lanceolato-subulatæ, erectæ, bicornes, corollâ paulò breviores, flavæ.* Germen *inferum, depressum.* Stylus *filiformis, corollâ paulo longior.* Stigma *obtusum.* Solander in sched. banks.

Native of North America; where it is said by Mr. Pursh to grow in low grounds and swamps, from New Jersey to Virginia; forming a tall red-twigged shrub, having large white flowers, with a red tinge; black insipid berries; and varying much in size, shape, and colour. Introduced by Mr. John Cree, in 1765.

The drawing was taken in Mr. Lee's nursery at Hammersmith; where the plant is cultivated in a sheltered border of peat-earth, along with other hardy american shrubs. The well-known Cranberry belongs to the same generic group.

Branches smooth, round; *branchlets* somewhat villous, slightly compressed. *Leaves* alternate, subpetiolate, broadly

elliptic, sharp-pointed, quite smooth at the upper side, slightly villous about the veins at the under, finely subserrulate, about an inch and a half long: *petioles* very short, somewhat villous. *Racemes* several on all the end-branches, alternate, simple, spreading, twice shorter than the leaves, one-ranked, manyflowered: *pedicles* somewhat villous, 3-4 lines long: *bractes* oblong, sharp-pointed, very smooth, generally of a pinkish hue; *one* upon the common peduncle at the foot of each pedicle, 2-3 lines long, ovate, concave; *two* opposite ones upon each pedicle a little above the base, spreading; but little shorter than the others. *Calyx* 5-cleft, quite smooth, of a dullish red colour, a line and a half long: segments ovate, broad, bluntish. *Corolla* white, with a reddish tinge on the outside, subcylindrical, faintly ventricose, 4 times the length of the calyx, 5-cleft at the mouth: segments ovate, bluntish. *Filaments* ten, slightly affixed to the edge of the receptacles, subulate, flat, upright, subvillous, but little longer than the calyx: *anthers* lanceolately subulate, upright, bicornous, but little shorter than the corolla, deep yellow. *Germen* depressed: *style* filiform, scarcely longer than the corolla; *stigma* obtuse.

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EVOLVULUS latifolius.

Broad-leaved Evolvulus.

PENTANDRIA *TETRAGYNIA*; [*rectiùs forsàn DIGYNIA?*]

Nat. ord. Convolvuli. *Jussieu gen.* 132. *Div. II.* Styli plures. Convolvulaceæ. *Brown prod.* 1. 481. *Sect. I.* Germen unicum.

EVOLVULUS. *Cal.* 5-partitus. *Cor.* subrotata, plicata. *Germ.* biloculare, loculis 2-spermis. *Styli* duo, bipartiti. *Stigmata* simplicia. *Caps.* valvata.

Herbæ *non lactescentes, prostratæ v. repentes, rarò erectæ.* Fol. *integra.* Pedunculi *axillares,* 1-*pauciflori, pedicellis bibracteatis.* Brown loc. cit. 489.

OBS. Cladostyles *Humboldt* et *Bonpland differt tantummodò capsulâ evalvi, et forsàn numero ovulorum.* Id. in eod.

E. *latifolius*, suffruticosus, pannoso-villosus, infernè erectus, ramis diffusis; foliis subsessilibus, oblongo-cordatis, acuminatis: fasciculis subsessilibus, subtrifloris.

Caulis *teres: rami simplices, foliosi, flexuosi, graciles.* Fol. *alterna, bifaria, numerosa, divaricato-patentia, recurva, internodiis duplo longiora, brevissimè petiolata, oblongo-cordata, longiùs acuminata,* 1-*biuncialia latitudine, ubi latiora, duplo minore, subrugata, lætè virentia, nervo medio laterales utrinque emittente: ob petiolum brevem et sinû baseos inclusum quasi amplexicaulia.* Flores *candicantes, subssessiles:* pedunculi *solitarii, axillares, brevissimi pauci-*(3-4?) *flori;* pedicelli *uniflori brevissimi;* bracteæ *appressæ, acuminatæ, plurimùm breviores calyce.* Cal. *herbaceus,* ⅓ *brevior corollâ, segmentis lineari-lanceolatis, piloso-ciliatis.* Cor. *rotata, diametro* ¼ *partem unciæ paulò exsuperans, extùs pilosa,* tubo *brevissimo.* Styli 2 *albidi, bipartiti.* Germ. *liberum, glabrum, viride.*

An unrecorded plant, from the Brazils; belonging to a genus of very rare occurrence in our collections, and not found within the limits of Europe. A co-ordinate of Convolvulus, but distinguishable at once by the two bipartite styles.

The drawing was made from a sample which flowered this summer in the hothouse at the nursery of Messrs. Colville, King's Road, Chelsea.

A villously furred suffrutescent perennial: *stem* upright at the lower part, round; *branches* wide-spread, flexile, simple, leafy, flexuose, slender. *Leaves* alternate, bifarious, numerous, subsessile, oblong-cordate, long-pointed, divaricately spread, twice longer than the intervals, very shortly

petioled, 1-2 inches long, and at the broadest part twice as narrow as long, somewhat wrinkled, of a lively green; owing to the petiole being shorter than the sinus at their base, they have the appearance of stemclaspers. *Flowers* white, subsessile: *peduncles* solitary, axillary, very short, 3-4-flowered; *pedicles* one-flowered very short: *bractes* close-pressed, long-pointed, a great deal shorter than the calyx. *Calyx* herbaceous, a third shorter than the corolla, with linearly lanceolate hairily ciliated segments. *Corolla* rotate, scarcely exceeding one fourth of an inch in diameter, hairy on the outside: *tube* very short. *Styles* two, white, bipartite. *Germen* detached, smooth, green.

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LEUCADENDRON corymbosum; *mas.*

Corymbed Leucadendron; the barren flowered plant.

DIŒCIA *TETRANDRIA.*

Nat. ord. PROTEÆ. *Jussieu gen.* 78. *Div. I.* Semen nudum aut fructus monospermus.

PROTEACEÆ. *Brown in trans. linn. soc.* 10. 15, *seqq.*

Div. I. Fructus clausus. A. ANTHERÆ DISTINCTÆ: à corollâ liberæ. *Flores dioici,* (organis imperfectis.) *Stigma* femineorum obliquum, emarginatum, papulosum. *Nux* v. Samara *squamis* dilatatis strobili inclusa. *Masculi flores* capitati.

LEUCADENDRON. MASC. *Flores* capitati. *Cal.* 0. *Pet.* 4, staminifera. FEM. *Stigma* obliquum. *Nux* vel Samara monosperma, squamis strobili inclusa. *Brown in Hort. Kew. ed.* 2. 5. 373.

Frutices *rarò* Arbores, *sæpè sericeo-tomentosi.* Folia *integerrima.* Capitula *terminalia, solitaria; bracteis imbricatis foliisve verticillatis et subcoloratis plerumque cincta.* Id. in trans. linn. soc. 10. 51.

Div. Nux ventricosa v. lenticularis aptera, undique marginibusve pilosa. Stylus totus deciduus, basive solum remanenti. Corolla diù persistens quadripartita.

L. *corymbosum,* foliis lineari-subulatis imbricatis glabris, strobili squamis acutis apice recurvis, nucibus subcompressis obcordatis margine pilosis. *Brown in Hort. Kew. ed.* 2. 5. 375.

Leucadendron corymbosum. *Berg. act. stockh.* 1766. 325. *Berg. cap.* 21; mas. *Brown in trans. linn. soc.* 10. 57.

Protea corymbosa. *Thunb. diss. n.* 28; (deser. è mare præcipuè) *tab.* 2; mas. *Thunb. prod.* 26. *Willd. sp. pl.* 1. 518. *Lam. illustr. gen.* 1. 238. *n.* 1250. *Poiret encyc. bot.* 5. 653. *Andrews's reposit.* 495; (fem.)

Protea bruniades. *Linn. suppl.* 117. Mas. fid. spec. in illius Herb.

OBS. *Squamulæ 4 hypogynæ in utroque sexû.*

A greenhouse shrub from the Cape of Good Hope: whence it was introduced by Mr. Masson in 1790.

The drawing was taken from a specimen in the nursery of Messrs. Colville, King's Road, Chelsea; where it formed a slender upright proliferously branching plant about four feet in height.

The genus is dioicous, that is, one where the fruitful flowers are borne on different plants, from those which bear the barren ones.

The following is a note by Mr. Brown: "The separation "of the plants with fertile from those with sterile flowers in "the genus PROTEA of authors, obscurely suspected by

" Linnæus himself in his Protea *parviflora*, and afterwards " more expressly by Lamarck in P. *pinifolia*, was first ascer- " tained in Aulax and the present genus (as I am informed " by Mr. Dryander) by our countryman Masson, during his " last residence at the Cape of Good Hope, and is beauti- " fully illustrated by that eminent botanical painter, Mr. " Francis Bauer, in his unpublished drawings preserved in the " Banksian collection. Numerous observations on the same " subject have also more recently been made by Dr. Rox- " burgh and Mr. Niven, who have bestowed much pains in " ascertaining its limits, of which, as far as regards the " african part of the family, Mr. Salisbury has given an ac- " curate account in his essay on this natural order. The " dissertation of Thunberg, who was wholly unacquainted " with this separation of the fertile and the unfertile flowers " in these plants, is necessarily imperfect, and he has in " several cases described the fertile and unfertile flowered " plants as distinct species; and thus also Bergius has " founded his genus Aulax on the sterile flowered plant of a " species, whose fertile flowered plant he had previously " published as a Leucadendron. On the other hand, Jus- " sieu, deceived by the resemblance in inflorescence, be- " tween Brabejum and the spiked species of Protea, has " erroneously suspected these to be monoicous, while he has " totally overlooked the truly dioicous nature of the present " genus."

A sketch of the whole plant diminished, is added in the annexed plate.

Syd. Edwards del. Pub. by J. Ridgway. 170 Piccadilly. Octbr 1. 1819. Smith sc.

EUCHILUS obcordatus.
Heart-leaved Euchilus.

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ. *Jussieu gen.* 345. *Div. IV.* Corolla irregularis papilionacea. Stamina distincta, aut rarò basi coalita. Legumen uniloculare bivalve. *Arbores aut frutices; folia simplicia aut ternata aut impari-pinnata.*=Papilionaceæ. *Brown in app. to Flind. voy.* 2. 552.

EUCHILUS. *Calyx* profundè quinquefidus, bilabiatus, labio superiore maximo; basi bibracteatus. *Corolla* papilionacea, carina longitudine alarum. *Germen* dispermum, pedicellatum. *Stylus* subulatus, adscendens. *Stigma* simplex. *Legumen* compressum. *Strophiola* seminis lobis posticis integris. *Brown in Hort. Kew. ed.* 2. 3. 17.

Euchilus obcordatus. *Brown in Hort. Kew. ed.* 2. 3. 17.

A genus of which we have but one recorded species. It was instituted by Mr. Brown, who first observed the shrub on the south-west coast of New Holland.

Introduced in 1803 by Mr. Peter Good. The drawing was taken at the nursery of Messrs. Whitley, Brames, and Milne, Fulham; where the plant flowers in the greenhouse, in the spring and summer. By no means common in our collections; nor has it been represented by any figure previous to the present.

Comes near to Pultenæa, from which its chief technical differences consist in having a calyx with a disproportionately large upper lip, instead of two proportionate lips; a pedicled, instead of a sessile germen; and the hinder lobes of the seminal strophiola (a ventral accretion peculiar to certain seeds) entire, not carved as there.

J. Lindley Esqr. del. Pub. by J. Ridgway 170 Piccadilly Oct. 1 1819. S. Watts sc.

CALYCANTHUS fertilis.

Scentless Allspice.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. CALYCANTHEÆ. *Flores* hermaphroditi. *Perianthium* inferum, urceolatum, multipartitum, laciniis serie multiplici, imbricatis, inæqualibus. *Stamina* plurima, disco carnoso faucis inserta, interiora sterilia; *antheræ* posticæ, longitudinalitèr dehiscentes, adnatæ. *Ovaria* plurima in pariete internâ perianthii inserta, unilocularia *ovulo* 1 (v. 2 altero abortiente) ascendente; *styli* terminales; *stigmata* simplicia. *Achenia* tubo perianthii carnoso inclusa; *Embryo* exalbuminosus *cotyledonibus* convolutis, transversis, *radicula* infera. Frutices (*Americæ septentrionalis* et *Japoniæ*). Folia *opposita, simplicia, scabra, exstipulata. Flores* solitarii. (Rosaceis affines, *Juss. gen. Vent.* MONIMIEIS affines, *Juss. in ann. du mus. vol.* 14.) Lindley MSS.

CALYCANTHUS. Stamina inæqualia decidua 12 exteriora fertilia. Achenia *plurima.* Frutices (*Am. sept.*) *ramis brachiatis.* Flores *terminales, luridi, concolores, sæpiùs odori.* Lindley MSS.

C. *fertilis*, foliis planis oblongis, acuminatis, subtùs glaucis nudiusculis. *Lindley MSS.*

Calycanthus fertilis. *Walt. carol.* 151. *Hort. Kew. ed.* 2. 3. 282.

Calycanthus glaucus. *Willd. enum.* 559. *Pursh Fl. Am. Septr.* 1. 357. *Nutt. gen.* 1. 312.

Frutex *erectus, compactus,* 3-4*pedalis.* Rami *oppositi, brachiati, teretes v. paulò angulati,* juniores *pilosi, adulti nudi, rubro-brunnei, opaci, circa nodos tumidi.* Folia *opposita, simplicia, decussata, horizontalia:* stipulæ *nullæ;* petioli *breves, pubescentes, suprà canaliculati, rubro tincti;* laminæ *ovato-oblongæ v. ovato-lanceolatæ, integræ v. subdentatæ, rugosæ, suprà nitidæ, scabriusculæ, lætè virides, nervis distantibus demersis, infrà glaucæ, opacæ, nudæ, costâ et nervis primariis prominentibus pilosiusculis.* Flores *inodori, terminales, inter folia duo rami loco, viridi purpurei;* bracteæ *nullæ nisi laciniæ perianthii extimæ, lineares, pilosiusculæ.* Perianthium (*è calyce et corollâ confluentibus, nullas enim limites invenire possumus*) *monophyllum, urceolatum, multipartitum; laciniæ imbricatæ, lanceolatæ, carnosæ, pilosæ, viridi-vel purpureo-brunneæ, intermediæ majores, extimæ minores, angustiores, pallidiores, intimæ breviores apice incurvæ, omnes pilosiusculæ.* Stamina *circitèr* 48, *disco magno, carnoso, cum perianthio connato, serie quadruplici inserta,* 12 *exteriora tantùm fertilia, intermedia minora, intima minima:* filamenta *crassa, ultrà antheras in apiculo terete, obtuso, diaphano producta, purpureo-brunnea, pilosiuscula;* antheræ *ellipticæ, adnatæ, posticæ, biloculares, flavæ:* loculi *approximati, longitudinalitèr dehiscentes, medio septiferi:* septum *completum sed non marginibus valvularum connatum;* pollen *ovale.* Ovaria *plurima, ovata, hinc recta, basi hirsuta, intrà tubum perianthii carnosum,* Rosæ *instar, inserta, unilocularia;* ovula *duo lateris interioris parieti internæ, unum suprà alterum, inserta, fungilliformia (i. e. parte superiore valdè dilatata et pilei instar, inferiorem cylindraceam versus dorsum ovarii directam, involucrante);* hilum *in margine infimâ pilei.* Styli *totquot ovaria, simplices, liberi, filiformes ad basin hirsuti, terminales:* stigma *terminale simplex.* Fructus (*à b. Frasero missus*) *obovatus, elongatus, è perianthio persistente indurato formatus, costis* 5 v. 6 *basi simplicibus, sursùm*

variè divisis trajectus. Achenia *pilosiuscula per faciem internam perianthii paulò obliquè inserta, sessilia, numero indefinita, ovalia, brunnea, polita, facie rectiuscula, dorso gibbosa, utrinque obscurè marginata, margine faciei paululùm evidentiore:* pericarpium *corneum non fragile.* Semen *cavitati achenii conforme, ascendens, hilo pericarpii cicatrici ferè opposito;* testâ *tenerâ duplici, exteriore pallidâ brunneâ, tenaci, interiore tenuissimâ albidâ: inter has duas ab hilo ad chalazam depressam percurrit vasculorum series* (raphe) *tenacissima, ab ipsâ chalazâ longiùs producta inter margines approximatos cotyledonum.* Embryo *homotropus, orthotropus, exalbuminosus;* cotyledones *albæ, carnosæ, quinquiès convolutæ, dorso placentæ opposito;* radicula *intra bases cotyledonum, ungue latâ brevi inserta, obconica, exorhiza, majuscula, apice obtusa, basi truncata:* gemmula *vix conspicua in centro basis radiculæ depressiusculo.* Lindley MSS.

Calycanthus *fertilis* differs from *C. floridus*, with which it is often confounded in the gardens, in having flat scabrous oblong leaves with an acumen, in being glaucous and nearly naked beneath, and in the colour of its almost scentless flowers. From *C. lævigatus* the same characters equally distinguish it. It is right, however, to observe that the young leaves of the present plant have nearly the form of *C. lævigatus.* We do not feel disposed to alter Walter's excellent name of *fertilis* for that of *glaucus*, which originated with Willdenow, and which has no pretensions to be retained. Andrews's figure, which every body cites to this, seems to us decidedly Calycanthus *lævigatus.*

Native of the southern states of North America, and introduced, according to Hortus Kewensis, in 1806 by Mr. Lyon.

M. de Jussieu in his elaborate dissertation on *Monimieæ* published in the 14th volume of the Annales du Muséum, has not suffered the affinity of Calycanthus to that order to escape his notice. Without however absolutely forming a new order for the genus, he has only hinted at the propriety of so doing, when more individuals may have been discovered to increase it. But we cannot help thinking, that when plants have such decided characters as the present, and when there is so little uncertainty with respect to their situation, it is much better to establish even a solitary individual as the type of an order, than to leave it amongst the mass of imperfectly known genera, which necessarily must always be appended to every natural system.

It is presumed that the characters given above are abundantly sufficient to distinguish *Calyantheæ*, not only

from *Monimieæ*, properly so called, but also from those genera which have been more recently separated by our profoundly learned countryman, Mr. Brown, under the name of *Atherospermeæ*. It equals the last-mentioned group in number of genera, by the addition of CALYCANTHUS *præcox* of Linnæus, whose peculiarities appear sufficient to entitle it to become the type of a new family*, as Persoon has already hinted. From the very incomplete account of CITROSMA in Flora Peruviana, it is impossible to ascertain whether it can also be admitted as Jussieu has proposed.

Bush erect, compact, 3 or 4 feet high. *Branches* opposite, brachiate, round or rather angular, *younger ones* pilose, *old ones* naked, chocolate coloured, opaque, swelling about the joints. *Leaves* opposite, simple, decussate, horizontal: *stipulæ* none; *footstalks* short, pubescent, channelled above, tinged with red; *laminæ* ovate-oblong or ovate-lanceolate, entire or somewhat toothed, rugose, above shining, roughish, bright green, with distant immersed veins, beneath glaucous, opaque, naked, with the rib and primary nerves, which are prominent, somewhat hairy. *Flowers* scentless, terminal, between two leaves, in the room of a branch, green purple: *bracteæ* none, except the outer segments of the perianth, linear, rather pilose. *Perianth* (formed of the confluent calyx and corolla, without any apparent limits to either) one-leaved, pitcher-shaped, many divided; the *segments* imbricate, lanceolate, fleshy, greenish-chocolate, the intermediate largest, exterior least, innermost shorter than the middle ones, curved inwards at the tip, all rather pilose. *Stamina* about 48, inserted in a great fleshy disk connate with the perianth, in four series, the outermost of 12 fertile, the intermediate shorter, innermost least; *filaments* thick, extended beyond the anthers in a round, obtuse, diaphanous tip, purplish-brown, rather pilose; *anthers* elliptical, adnate, exterior, two-celled, yellow; *cells* approximated, opening lengthwise, in the middle septiferous; *septum* complete, but not united with the margin of the valves; *pollen* oval. *Ovaries* many, ovate, straight on one side, hairy at the base, inserted on the face of the tube of the perianth, like that of the Rose, unilocular:

* CHIMONANTHUS. *Stamina* æqualia, persistentia, 5 exteriora fertilia, maturitate basibus connatis faucem operientia. Frutex *(Japoniæ) ramis virgatis.* Flores *axillares, solitarii, odori, flavescentes, intus purpurei.* Lindley MSS.

ovules two, inserted one above the other on the inside of the face of the ovary, fungilliform (that is, with their upper part much dilated and in the shape of a hat, wrapping over the lower half, which is cylindrical and directed towards the back of the ovary): *hilum* on the lowest edge of the hat. *Styles* as many as ovaries, simple, disengaged, filiform, hairy at the base, terminal: *stigma* terminal, simple. *Fruit* (received from Mr. John Fraser) obovate, elongated, formed of the hardened, persistent perianth with 5 or 6 ribs, simple at the base, variously divided upwards. *Achenia* somewhat hairy, inserted obliquely on the inside of the perianth, sessile, indefinite, oval, brown, polished, face straight, back gibbous, down each of the last obscurely margined, margin of the face more prominent than the other; *pericarp* corneous, not fragile. *Seed* shaped like the cavity of the pericarp, ascending, with the *hilum* nearly opposite the scar of the achenium; *skin* double, the outer pale brown, tough, the inner extremely delicate, white; between these two, from the hilum to the chalaza, which is flattened, runs a series of vessels *(the raphe)* possessing considerable tenacity, and extended even beyond the chalaza down between the approximated edges of the cotyledons. *Embryo* homotropous, orthotropous, without albumen; *cotyledons* white, fleshy, 5 times convolute, their back opposite the placenta: *radicle* inserted by a broad short unguis within the bases of the cotyledons, obconical, exorhizous, obtuse at the tip, truncate at the base; *gemmule* scarcely visible, in the depressed centre of the base of the radicle. *Lindley MSS.*

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HABENARIA fimbriata.

Purple fringed Habenaria.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Jussieu gen.* 64.

ORCHIDEÆ. *Brown prod.* 1. 309. *Sect. I. Anthera* adnata subterminalis persistens. *Pollinis massæ* è lobulis angulatis elasticè cohærentibus; basi affixæ. *Id. in Hort. Kew. ed.* 2. 5. 188.

HABENARIA. Cor. ringens, petalis 3 *v.* 5 in galeam conniventibus. *Labellum* basi subtùs calcaratum v. subsaccatum. *Anthera* terminalis, loculis adnatis, basibus quandoque solutis elongatis. *Massæ pollinis* pedicellatæ, pedicellis singulis basi glandulæ respondenti nudæ insertis. *Brown prod.* 1. 312.

Div. Loculis antherarum columnæ juxta apicem longitudinalitèr adnatis.

H. *fimbriata,* cornu filiformi germine longiore, labello tripartito laciniis cuneiformibus fimbriatis. *Brown in Hort. Kew. ed.* 2. 5. 193.

Orchis fimbriata. *Hort. Kew.* 3. 297. *Willd. sp. pl.* 4. 39. *Pursh amer. sept.* 2. 588.

Radix *fasciculata.* Caulis *erectus glaber ex ancipiti acutè tetragonus.* Folia *caulina nonnulla* (3-5) *alterna sessilia oblonga acuta glabra integerrima nervosa carinata, basi vaginantia biuncialia.* Spica *ovato-oblonga, multiflora.* Flores *è cæruleo purpurascentes.* Bracteæ *lanceolatæ nervosæ germinibus paulò longiores.* Petala *quinque plana longitudine æqualia trilinearia, supremum seu dorsale ovatum obtusum erectum, lateralia exteriora ovata acuta patentissima, lateralia interiora oblonga obtusa juxta petalum dorsale erecta, infra medium dilatata ibique denticulata, basi attenuata.* Labellum *petalis paulo longius tripartitum, laciniæ latæ cuneiformes æquales planæ ad medium subdivisæ in cilias subulatas, laterales divaricatæ, intermedia patens.* Germen *semiunciale.* Solander in Hort. Kew. 3. 297.

Native of North America; where it is found in low meadows and high mountain bogs from Newfoundland to Pensylvania. Introduced by Dr. W. Pitcairn in 1777.

The drawing was taken at Mr. Knight's nursery, in the King's Road, Little Chelsea; and affords, we believe, the only representation of the species yet published.

The feature, mainly relied upon by Mr. Brown for the technical distinction of the present genus from ORCHIS, is, the circumstance of the glandular supports of the pollen-masses being naked or uncovered in this, not enclosed within the case or hood of the anther as in that. Some of the species are remarkable for the elongation of the detached bases of the cells of the anther-case, and have suggested the generic

appellation. Orchis is scarcely met with beyond the limits of Europe; no where within the tropics or the southern hemisphere. Habenaria is represented by various species in the four quarters of the world, as well as in our own country.

From one to two feet high. *Root* fascicled. *Stem* upright, smooth, proceeding from two-edged to four-edged. *Leaves* cauline, several (3-5) alternate, sessile, oblong, sharp-pointed, quite entire nerved, keeled, at the base sheathing two inches long. *Spike* ovately oblong, many-flowered. *Flowers* blue-purple. *Bractes* lanceolate, nerved, but little longer than the germens. *Petals* 5, flat, of the same length, 3 lines long, the uppermost or dorsal one ovate obtuse upright, outer lateral ones ovate sharp-pointed outspread, inner lateral ones oblong obtuse near to the dorsal petal upright, widened below the middle, where they are denticulate, tapered at the base. *Labellum* but little longer than the other petals, tripartite, segments broad cuneiform or wedge-shaped equal flat divided to the middle into subulate strips, lateral ones divaricate, middle one spreading. *Germen* half an inch long.

Hart. del.

...cadilly Oct 1. 1819

F. Watts sc.

CLERODENDRON paniculatum.

Panicled Clerodendron.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. VERBENACEÆ. *Jussieu in annal. du mus. Brown prod.* 1. 510.

CLERODENDRON. *Cal.* campanulatus, 5-fidus v. 5-dentatus. *Cor.* tubo cylindraceo sæpiùs elongato; limbo 5-partito, laciniis æqualibus. Stam. 4, didynama exserta, secunda. *Germ.* 4-loculare, loculis monospermis. *Stig.* bifidum, acutum. *Bacca* tetrapyrena, calyce sæpiùs ampliato cincta. Arbores v. Frutices. Fol. *opposita, simplicia, indivisa, nunc lobata, petiolorum basi persistenti.* Corymbi *terminales et axillares, trichotomi.* Brown prod. 1. 510.

C. *paniculatum,* foliis cordatis quinquelobis subdenticulatis glabris; summis sæpiùs indivisis, panicula brachiata, corollæ tubo calycem multoties superante. *Brown in Hort. Kew. ed.* 2. 4. 63.

Clerodendron paniculatum. *Linn. mant.* 90. *Vahl symb.* 2. 74. *Willd. sp. pl.* 3. 388.

Clerodendron pyramidale. *Andrews's reposit.* 628.

Rami *tetragoni, glabri, purpurei, lateribus sulco exarati.* Folia *petiolata, opposita, palmaria, inferiora spithamæa, quinqueloba, basi costata, utrinque glabra, remotè denticulata, lobi lanceolatè acuti:* petioli *teretes, sulcati, crassitie pennæ columbinæ; axillæ hirsutæ pilis longis crispis albidis caulem ambientibus æquè ac ad basin ramorum paniculæ.* Panicula *terminalis, brachiata:* pedunculi *partiales horizontales, oppositi, glabri, multotiès dichotomè divisi: ramuli divisissimi:* pedicelli *ultimi capillares:* foliola *petiolata, cordato-lanceolata ad basin pedunculorum partialium; subulata ad basin ramulorum.* Calyx *glaber: laciniis lanceolatis.* Corolla *pollicaris: tubus filiformis: laciniæ limbi oblongæ.* Vahl loc. cit.

A very ornamental shrub belonging to the hothouse department; flowering from July to October. Native of Java and Pulo Pinang (Prince of Wales's Island); from which last place the species was introduced in 1809, by Mr. Evans, of Stepney.

The drawing was taken this summer at the nursery of Messrs. Whitley, Brames, and Milne, Fulham.

Branches four-cornered, smooth, purple, scored along the side. *Leaves* petioled, opposite, cordate, five-lobed, from three to seven inches or more in length, remotely and obsoletely denticulate, uppermost generally undivided, smooth on both sides: lobes lanceolate, pointed: *petioles* round, scored, about as thick as the stem of a pigeon's

quill; axils shaggily furred with long whitish curled hairs surrounding the stem at that place, as well as at the base of the branches of the panicle. *Panicle* terminal, brachiate: partial *peduncles* horizontal, opposite, smooth, dichotomously subdivided: *branchlets* repeatedly subdivided: *end-pedicles* capillary: *leaflets* at the base of the partial peduncles petioled, cordately lanceolate at the base of the branchlets, subulate. *Calyx* smooth: *segments* lanceolate. *Corolla* an inch long; tube filiform, many times longer than the calyx; segments of the limb oblong.

It is observed by Sir James Smith, that "there is a "great resemblance in the general habit and several prominent characters between the species of this genus and "those of VOLKAMERIA. That it differs from the latter in "having a simple, not a bifid stigma, and one-seeded, not "two-seeded stones or pyrenes. That the number of kernels or seeds is, however, in both genera exactly the "same."

Hart del. Pub. by J. Ridgway 170 Piccadilly Nov. 1. 1819. S. Watts sc.

MAGNOLIA pyramidata.

Pyramidal Magnolia.

POLYANDRIA *POLYGYNIA.*

Nat. ord. MAGNOLIACEÆ. *Decand. syst. nat.* 1. 439.
MAGNOLIA. Suprà vol. 4. *fol.* 325.

M. *pyramidata,* foliis deciduis utrinque concoloribus spathulato-obovatis, basi cordatis, auriculis divaricatis, sepalis (foliolis calycinis) tribus patentibus, petalis novem lanceolatis, acuminatis. *Decand. syst. nat.* 1. 454.
Magnolia pyramidata. *Pursh amer. sept.* 2. 382. *Sweet hort. sub. lond.* 126.
Magnolia auriculata; *β. pyramidata. Nuttall gen.* 2. 12.
Magnolia auriculata. *Michaux bor. amer.* 2. 328 *(excluso synonymo); non aliorum.*
Another new species of Magnolia, &c. &c. *Bartram's trav.* 340; *sub calce. A'* MAGNOLIÂ auriculatâ *differt, testibus Bartramio et Purshio, non tantum habitû pyramidato, sed foliis quadruplo minoribus subtùs viridibus, auriculis à petiolo divaricatis, petalis lanceolatis sensìm acuminatis.* Decand. loc. cit.

We have followed Messrs. Bartram, Pursh, and Decandolle in recording our plant, as a different species from MAGNOLIA *auriculata,* of which it has been considered by others a mere variety.

Pyramidata is a tree of more upright pyramidal growth than *auriculata,* with leaves not one-fourth the size; besides, these are here of one colour on both surfaces, but there green on one and glaucous on the other; and the lobes of the base are divaricate in this, converging in that; the petals are nine in both, but oblong in *auriculata* and lanceolate in *pyramidata.*

Native of the western parts of Georgia and Carolina, in North America. Introduced by Mr. Lyon in 1811.

The drawing was taken at the nursery of Messrs. Colville, King's Road, Chelsea, where it is cultivated along with other North American plants in the open ground, and flowers in June.

The foliage of *pyramidata* is of a much thinner substance than in *auriculata,* and the whole plant has a very different appearance.

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CISTUS purpureus.

Spotted purple Cistus.

POLYANDRIA *MONOGYNIA.*

Nat. ord. CISTI. *Jussieu gen.* 294.
CISTUS. Suprà vol. 3. *fol.* 225.

Div. Exstipulati, fruticosi.

C. *purpureus*, fruticosus, exstipulatus, foliis lanceolatis utrinque acutis rugosis, pedunculis brevibus. *Lamarck encyc.* 2. 14.

Cistus purpureus. *Smith in Rees's encyclop. Decand. hort. monsp.* 19; *Persoon syn.* 2. 75.

Cistus ladaniferus orientalis, flore purpureo majore. *Tournef. cor.* 19?

Frutex quadripedalis ultràve ramis numerosis ascendentibus, villosiusculis, foliosis. Folia *obscuro-viridia lanceolata, utrinque attenuata, minutè rugosa, margine undulata uncias duas vel duas cum dimidio longa latitudine quinque-octolineari.* Flores *terminales ampli, roseo-purpurei, maculâ fusco-sanguineâ ad basin cujusque petali.* Calyx *foliolis quinque ovalibus, mucronatis, appresso-villosis.* Lamarck loc. cit.; (ex gallico vers.).

This handsome shrub is universally known in our collections by the title of CISTUS *creticus;* from which however it has been well distinguished by the industrious and sagacious Chevalier de Lamarck in his excellent Encyclopédie Botanique. *Creticus* is much smaller in all its parts than *purpureus*; has spatulately lanceolate or ovate leaves, a corolla of one colour not marked with the dark purple spot at the base of each petal so remarkable in the present species.

Purpureus is supposed to be native of the Levant; indeed if really the plant of the synonym we have adduced from Tournefort, there can be no doubt on that head. We presume its omission in the Hortus Kewensis, has arisen from its having been confounded with *creticus:* why it has not been adopted by Willdenow, we are unable to say.

The drawing was taken at the nursery of Messrs. Colville, in King's Road, Chelsea; where the plant flowers during the summer months; and is preserved in a garden frame during winter. It is one of long standing in the gardens of this country, as well as in those of France. We suspect that the specimen from Tournefort's Herbarium, placed in that of Sir Joseph Banks along with another of the

true *creticus*, belongs to the species we are speaking of; though the want of the corolla prevents absolute certainty on this point.

Four feet high or more; *branches* numerous, ascending, slightly villous, leafy. *Leaves* dingy green, lanceolate, tapered at each end, finely wrinkled, undulated at the edge, two inches or two and an half long, from five to eight lines broad. *Flowers* terminal, large, rosy-purple, with a dark spot at the foot of each petal. *Calyx* with five oval, mucronate, close-pressedly villous leaflets.

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CALYTRIX glabra.

Bare-leaved Calytrix.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. MYRTI (*recentiùs* MYRTACEÆ). *Jussieu gen.* 322.

CALYTRIX. Cal. superus, tubo cylindraceo, limbo 5-partito, laciniis aristatis persistentibus. *Pet.* 5, decidua. *Stam.* omnia (sæpiùs indefinita rarò decem) antherifera, decidua. *Ovarium* uniloculare, dispermum. *Pericarpium (Achenopsis)* monospermum, indehiscens, exsuccum. *Frutices (Novæ Hollandiæ) ericoidei.* Folia *parva sæpiùs angulata, sparsa, imbricata, glanduloso-punctata, in plerisque petiolata et stipulis! setaceis liberis minutis deciduis instructa.* Flores *(albi vel purpurei) axillares, solitarii, bibracteati,* bracteis *membranaceis, carinatis, persistentibus, basi connatis.* Brown MSS.

C. *glabra,* icosandra; foliis petiolatis stipulatis adultis bracteisque glabris. *Brown MSS.*

A genus instituted by M. Labillardière, but promulgated with a definition so vague and general, that the name is almost the only accession to science. Nor has our author been more successful in the description of his only species or in the figure he has given us from the dried plant; for, with all the attention we could use to ascertain whether his plant is specifically the same with the present or not, the point still remains so great a puzzle with us, that we have thought it safest to give no opinion on the subject.

The generic character, now offered, is from the pen of Mr. Brown, and has been framed with the accustomed skill and foresight of that learned naturalist with a view to the cluster of confining genera from the same regions, which will be found near it in the concluding volume of his Prodromus of the Flora of New Holland.

Achenium implying an indehiscent originally one-seeded seedvessel, while that of the present genus though eventually one-seeded, having been found by Mr. Brown to originate in a germen with two ovula, one of which proves constantly abortive, he has thought it advisable to suggest *Achenopsis* as a more precise denomination for this sort of seedvessel.

Glabra is the first of the genus that has presented itself in our european gardens, and is native within the Colony of Port Jackson, where it was found by Mr. Brown, whose Herbarium contains likewise four more of its congeners, of which that gentleman has favoured us with the following account. Three, our plant being one, were observed by him in the colony above mentioned as well as in Van Diemen's Island, and agree in having a petioled stipuled foliage and icosandrous flowers; a fourth he discovered on the south-west coast of New Holland, this had likewise a petioled stipuled foliage, but the flowers were decandrous; the fifth he observed on the north coast of the same continent (in the bay of Carpentaria), in that the flowers were icosandrous as in the three first mentioned species, but it differed from all the others in having a foliage without either petioles or stipules. Through these modifications the genus will be found to unite with its confining co-ordinates at different points.

All five are heathlike *shrubs*; with small, generally angular, scattered, imbricated, glandularly dotted *leaves*, mostly petioled, and furnished with minute setaceous deciduous *stipules*; white or purple axillary solitary bibracteate *flowers*, the *bractes* membranous, keeled, persistent, and connate at the base; a superior *calyx* with cylindrical *tube*, 5-parted *limb*, awned and persistent *segments*; 5 deciduous *petals*; *stamens* (generally indefinite, seldom ten) all antherbearing, deciduous; a one-celled, two-seeded *germen*; and a one-seeded dry indehiscent *seedvessel* (*Achenopsis* of Mr. Brown).

The leaves of our plant, when fresh, are perfectly cylindrical; but when dry, triangular, owing to the flesh shrinking from the longitudinal nerves or ribs.

The drawing was taken at the nursery of Messrs. Colville, King's Road, Chelsea; where the plant flowered early in the summer; being kept in the greenhouse and treated like the Cape Heaths. We understand that it had been very lately imported by Mr. Rollison, the nursery-man.

Mr. Brown thinks the genus should be placed next to EUGENIA in the Linnean system.

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S. Watts sc.

MELALEUCA incana.

Grizzly Melaleuca.

POLYADELPHIA *ICOSANDRIA.*

Nat. ord. MYRTI (MYRTACEÆ). *Jussieu gen.* 322. *Div. I.* Flores in foliorum axillis aut in pedunculis multifloris oppositi. *Folia* plerumque opposita et punctata.

MELALEUCA. *Suprà vol.* 2. *fol.* 103.

Div. Folia verticillata.

M. *incana*, foliis ternis lineari-lanceolatis utrinque ramulisque incano-pubescentibus, spicis ovalibus oblongisve. *Brown MSS.*

An unpublished greenhouse species, of recent introduction, first observed by Mr. Brown, in King George the Third's Sound, on the south-west coast of New Holland. Comes near to MELALEUCA *densa*, which also has a foliage in whorls of three, but there the leaf is obovate and without pubescence.

We were favoured with the specimen, for the drawing, by Lady Aylesford, with whom the plant flowered in the collection at Stanmore, early in the summer.

We are indebted to Mr. Brown for the specific character, and all we know concerning the plant.

Hart. del.   Pub by J. Ridgway 170 Piccadilly Nov. 1. 1819.   S. Watts. sc

GASTROLOBIUM bilobum.

Two-lobed Gastrolobium.

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ. *Jussieu gen.* 345. *Div. II.* Papilionaceæ. *Brown gen. rem. in Flind. voy.* 2. 552.

GASTROLOBIUM. Cal. 5-fidus, bilabiatus, ebracteatus. *Cor.* papilionacea, petalis longitudine subæqualibus. *Germen* dispermum, pedicellatum: *stylus* subulatus, adscendens: *stigma* simplex. *Legumen* ventricosum: *semina* strophiolata. *Brown in Hort. Kew. ed.* 2. 3. 16.

G. *bilobum*, foliis (uncialibus) subtùs subsericeis retusis: lobulis rotundatis mucronulo longioribus, leguminis pedicello tubum calycis æquante. *Brown in Hort. Kew. ed.* 2. 3. 16.

A genus instituted by Mr. Brown in the second edition of the Hortus Kewensis; and consisting of a group characterized by a fivecleft bilabiate bracteless *calyx*; a papilionaceous *corolla* with nearly equal *petals*; a pedicled twoseeded germen; a subulate ascending *style*; a simple *stigma*; a ventricose *pod*; and strophiolate (furnished with ventral epiphyses) *seeds*.

The present species, the only recorded one, is distinguished by its retuse *leaves* (an inch long) with a somewhat silky fur on the under side, their end lobes rounded and longer than the intervening point; and by a footstalk of the pod which is even with the calyx.

First observed by Mr. Brown on the south-west coast of New Holland; and introduced by Mr. Peter Good in 1803.

A greenhouse shrub. One however far from common in our collections; and never represented by any published figure, that we are aware of, before the present.

We are obliged to Mr. Herbert for the specimen from which the drawing has been taken. It flowered in the collection at Spofforth, last spring.

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Syd. Edwards del.   Pub. by J. Ridgway 170 Piccadilly Nov. 1. 1819   S. Watts sc.

PERGULARIA odoratissima.

Sweet-scented green Pergularia; or Chinese Creeper.

PENTANDRIA *DIGYNIA.*

Nat. ord. Apocineæ. *Jussieu gen.* 143. *Div. II.* Germen duplex. Fructus bifollicularis. Semina papposa.

Asclepiadeæ. *Brown in mem. Wern. soc.* 1. 19. *Div. I.* Asclepiadeæ Veræ.

PERGULARIA. *Cor.* hypocrateriformis, tubo urceolato. *Corona staminea* 5-phylla, foliolis compressis apice indivisis, intùs lacinulâ auctis. *Antheræ* membranâ terminatæ. *Massæ pollinis* erectæ, basi affixæ. *Stigma* muticum. *Folliculi* ventricosi, læves. *Semina* comosa. *Plantæ volubiles. Fol. latiuscula, membranacea. Cymæ interpetiolares. Flores flavescentes odoratissimi. Patria ignota: in Chinâ et Indiâ Orientali ob flores suaveolentes cultæ.* Brown loc. cit. 31.

P. *odoratissima,* foliis cordatis acuminatis, calycibus tubo corollæ brevioribus. *Dryander in Hort. Kew. ed.* 2. 2. 83.

Pergularia odoratissima. *Smith ic. pict.* 16; *(exclus. Lour.) Andrews's reposit.* 185.

Pergularia tomentosa. *Lin. mant.* 53; *(tantùm modò quoad descriptionem).*

Flos siamicus. *Rumph. amb. auctuar.* 7. 58. *t.* 26. *fig.* 1.

Mr. Brown observes that "the only certain species of this genus are the present and *minor;* P. *purpurea,* Vahl. and *japonica,* Thunb. may belong to it. P. *edulis* of Thunberg *(prod. cap.)* is probably very different. When Linnæus established the genus in his Mantissa, he certainly meant his character to apply to Pergularia *glabra,* of which he had a specimen in his Herbarium, and which is the *Flos Pergulanus* of Rumphius; but unfortunately this plant does not belong to the order of *Asclepiadeæ,* but to my first section of *Apocineæ.* The character of Linnæus was no doubt chiefly taken from a plant of P. *odoratissima,* that had flowered in the Upsal Garden, and which he confounded with the Asclepias *cordata* of Forskael, an error long since pointed out by Sir James Smith in his very accurate and satisfactory account of P. *odoratissima* in the Icones Pictæ."

To the above remarks we shall subjoin Sir J. Smith's amended history of the present species, as given by that learned botanist in Rees's Cyclopedia.

"Sir Joseph Banks is said to have sent it to Kew about the year 1784. It is cultivated in China, as a favourite bower plant, though of what precise country a native is not known. We have been told it is wild in Sumatra. The late Lady Amelia Hume received a fine plant of this species in 1789, which covered the stern of the ship with its fragrant green blossoms, during a great part of the voyage, and has since been widely propagated in this country. It thrives either in a stove or warm conservatory, flowering throughout the summer and autumn, and exhaling, in an evening, that peculiar, light, lemon-like, but luscious fragrance, of which the Chinese are so fond, and which belongs to various greenish night-scented flowers, as the CHLORANTHUS *inconspicuus*, and some *Orchideæ*. The root is branched, widely spreading. *Stem* shrubby, round, branched, twining and climbing to a great extent; downy when young; the bark spongy and cracked when old. *Leaves* opposite, stalked, deflexed, heart-shaped, rather taper-pointed, entire, opaque, veiny, downy at the veins and margin, paler beneath, each 2-3 inches long. *Stipulas* none, but the *footstalks* much shorter than the leaves, are glandular at their summit, as well as on each side at the base. *Panicles* axillary, solitary, drooping, forked, many-flowered, downy. *Bracteas* lanceolate, at each division of the panicle. *Flowers* the size of a primrose, pale yellowish-green, bearded within, their segments linear-oblong, oblique, the length of the tube, fringed."

"Linnæus had in his Herbarium a chinese specimen of this plant, marked *tomentosa*, with a note at the back signifying that the Catholic clergy at Macao prepare, from its milky juice, a medicine for the dysentery. He cultivated the same in his stove, and described it in his *Mantissa*. 53. The name and specific character however do not apply to this, but to a very different plant, Forskael's ASCLEPIAS *cordata*. Flos siamicus, *Rumph. amb. auctuar.* 7. 58. *t.* 26. *f.* 1., seems to be intended for our present species; though CYNANCHUM *odoratissimum*, of Loureiro, by the description of the yellow flowers, probably belongs rather to *minor*."

The drawing was taken at Mr. Pamplin's nursery in the King's Road, Chelsea.

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PANCRATIUM verecundum. β.

Solander's Sea-Daffodil.

HEXANDRIA *MONOGYNIA.*

Nat. ord. NARCISSI. *Jussieu gen.* 54. *Div. II.* Germen inferum. AMARYLLIDEÆ. *Brown prod.* 1. 296. *Sect. I.*
PANCRATIUM. Suprà vol. 3. *fol.* 221.

Div. Floribus petiolatis v. subsessilibus: limbo radiato: incisuris senis coronæ staminiferis.

P. *verecundum*, spatha 2-4-flora, foliis linearibus acutis, limbo corollæ breviore tubo, coronæ incisuris alternè profundioribus, staminibus incurvis 2-3plo longioribus lobulis coronæ. *Nob. in journ. of scien. and the arts.* 3. 318; *(ab anglico Roxb. MSS. verso).*

Pancratium verecundum. *Solander in Hort. Kew.* 1. 412; *(sed in editione secundâ à Dryandro omissum. A Willdenovio aliisque malè cum* P. maritimo *confusum).*

Pancratium triflorum. *Roxburgh MSS. in Musæo Banksiano cum tabulâ pictâ. Carey bengal.* 23.

Catulla pola. *Rheede malab.* 11. 79. *t.* 46.

(β) tubo subtriunciali.

Distinguitur P. maritimo *(vid. suprà fol.* 161.*) foliis numerosioribus, non glaucis, acutè acuminatis, nec exactè bifariis, dentibus coronæ undulatis longioribus, magisque acuminatis, filamentis bis terve longioribus dentibus coronæ.*

Fol. 8-10, *sesquipedalia, semunciam lata.* Scapus *erectus, compressus, pedalis.* Spathæ *oblongæ, lanceolatæ, acuminatæ, albidæ, marcescentes, exteriores majores sesquiunciales.* Flores *suaveolentes pedicellati.* Pedicelli *trigoni vix semunciales.* Corollæ tubùs *cylindrico-trigonus, virescens vix biuncialis, crassitie pennæ anserinæ.* Limbus *campanulatus: laciniæ lanceolatæ, acutæ, tubo paulò breviores, niveæ, extùs medio virescentes.* Corona *campanulata, corollæ laciniis brevior, sexfida, laciniis bifidis.* Fil. *alba.* Anth. *flavæ.* Stylus *declinatus virescens.* Stigma *obsoletè trilobum.* Solander.

We are indebted to Mr. Herbert for the specimen of this rare plant. It was produced this summer in the hothouse at Spofforth; and had been received from the Calcutta Botanic Garden. The species was originally named and recorded in the first edition of the Hortus Kewensis by Dr. Solander, from a plant which flowered at Mrs. Theobald's in 1776; but has been omitted by Mr. Dryander in the second edition of that work; for reasons of which we are not precisely aware.

In our plant the tube of the corolla is longer than in that described by either Dr. Solander or Dr. Roxburgh; but this is at all times a very variable feature, and one little to be

relied on in the cultivated plants of this genus: we have, however, marked it as the variety β; that others may distinguish the two according to their own views.

Leaves 8-10, lorate, acuminate, convolute, channelled, a foot and an half long, half an inch or more in breadth, not glaucous. *Scape* upright, compressed, a foot or more in length. *Spathes* oblong, lanceolate, long-pointed, whitish, withering, outer ones the largest, about an inch and an half in length. *Flowers* sweet-scented, pedicled; *pedicles* 3-cornered, scarcely half an inch long. *Tube* of the *corolla* cylindrically 3-cornered, greenish, 2-3 inches long, with the thickness of a large quill: *limb* campanulate: *segments* lanceolate, pointed, shorter than the tube, quite white, greenish in the middle on the outside: *crown* campanulate, shorter than the limb, sixcleft, with two-cleft segments. *Filaments* white: *anthers* deep yellow. *Style* declining, greenish.

We had no opportunity of describing from the living plant, and have adopted Dr. Solander's description.

Differs from *maritimum* (see fol. 161) in having more leaves, and these taper-pointed and not glaucous, longer taper-pointed segments to the crown, and filaments which are at least 2 or 3 times higher than the segments of the crown.

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Hart. del. Pub by J. Ridgway 170 Piccadilly Nov. 1. 1819. S. Watts.

AZALEA nitida.

Glossy-leaved Azalea or Swamp Honeysuckle.

PENTANDRIA *MONOGYNIA.*

Nat. ord. RHODODENDRA. *Jussieu gen.* 158. *Div. I.* Corolla monopetala.

AZALEA. *Suprà vol.* 2. *fol.* 120.

A. *nitida*, foliosiflora; ramis glabriusculis, foliis parvis oblanceolatis submucronatis coriaceis utrinque glabris suprà nitidis: nervo subtùs setigero, margine revoluto-ciliatis, floribus viscosis: tubo laciniis paulò longiore, calycibus brevissimis, filamentis exsertis. *Pursh amer. sept.* 1. 153.

Azalea nitida. *Sweet hort. sub. lond.* 34.

A hardy shrub, first recorded as a species by Mr. Pursh; who tells us that it grows in deep mossy swamps, on mountains, from New York to Virginia; and flowers about June and July.

Introduced, according to the Hortus Suburbanus Londinensis, in 1812.

The drawing was taken at the Nursery of Messrs. Colville in the King's Road, Chelsea, the only place where we have yet met with it.

Distinguished at first sight from its congeners by smaller dark green shining leaves.

Inflorescence leafy; corolla white with a red tinge. *Branches* smoothish; *leaves* obversely lanceolate, with a slight end-point, of coriaceous or leathery substance, smooth on both sides, shining at the upper, revolutely fringed at the edge, midrib bristly underneath; *flowers* viscous; *tube* a little longer than the *segments; calyx* very short; *filaments* protruded.

We have relied upon Mr. Pursh for the description; as we had no opportunity of taking one while the plant was in flower.

Hon. W. Herbert del.   Pub by J. Ridgway 170 Piccadilly Dec 1. 1819.   J. Watts sc.

ANGELONIA salicariæfolia.
Violet-flowered Angelonia. Angelon.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Scrophulariæ. *Jussieu gen.* 117. *Div. I.* Stamina 4 didynama.

Scrophularinæ. *Brown prod.* 1. 433. *Sect. II.* Stamina 4 antherifera.

ANGELONIA. *Cal.* (parvulus, virens) 5-partitus, subobliquus, appressus; *lac.* subæqualibus, 2 approximatis. *Cor.* irregularis, patens, 2-labiata: *tubus* brevis; *faux* fornicata; *labium superius* 2-partitum; *inferius* multò majus, 3-partitum, *laciniâ* intermediâ ad basin ferè in formam calcei ampliata, demùm rotundato-plana. *Fil^a.* tubo corollæ inserta, eo paulò longiora, arcuata, hirsuta, subæqualia: *anthæ.* loculis divergentibus acutis. *Germ.* globosum hirsutum: *stylus* brevis: *stig.* acutum. *Caps.* calyce persistente stipata, depresso-globosa, levitèr 4-sulcata, 2-loc., polysperma, apice 2-valvis, valvulis 2-fidis: *sem.* numerosa; minuta, subcuneata, superficie scrobiculata. *Caulis herbaceus: fol. decussatim opposita, serrata, pubentia: pedunculi axillares, solitarii, 1-flori; fructiferi recurvati.* Humb. et Bonpl. pl. equin. 2. 92.

Angelonia salicariæfolia. *Humb. et Bonpl. pl. equin.* 2. 92. *tab.* 108.
Angelon. *Colonis hispanicis, fide Humb. et Bonpl.*

This very ornamental plant has been recently introduced by Mr. Herbert, to whom we are indebted for the drawing, taken by himself from a sample that flowered this summer, for the first time, in the hothouse at Spofforth.

The genus was framed by Messrs. Humboldt and Bonpland, and originates with the present species, observed by those distinguished naturalists in a wild state on the arid rocks of gneiss in the environs of Caraccas, the capital of the South American province of that name. It is known among the inhabitants by the appellation of *Angelon,* and used medicinally for the same purposes as the flowers of the Violet with us. The range of its geographical elevation appears to be between 5 and 600 toises above the level of the sea.

In natural affinity the genus borders upon Alonsoa; but differs essentially in corolla and fruit. It is confined at present to a single species, not recorded in any general system of vegetables.

Annual, 15-30 inches high; dividing into branches immediately above the crown of the root. *Branches* 4-cornered, generally upright, sometimes recumbent for the lower half or thereabouts; leafy only at their upper extremity, closely and shortly furred. *Leaves* opposite, spreading, near, sessile, 1½-2 inches long, 6-8 lines broad, shortly furred on both sides; slightly indented at the edge. *Flowers* violet-coloured, axillary, solitary: *peduncles* long. *Calyx* deeply five-cleft, two segments closer than the rest. *Corolla* subbilabiate, distended; *tube* short cylindric; *faux* vaulted; *upper lip* bipartite; *lower lip* much larger, tripartite, the middle segment larger and enlarged at the base in the form of a slipper, rounded at the end. *Stamens* 4 attached to the tube of the corolla: *filaments* unequal, shorter than the corolla, slightly bowed and furred their whole length: *anthers* 2-celled, yellow; *cells* divergent, pointed. *Germen* spherical, pubescent: *style* very short: *stigmas* pointed. *Capsule* spherical, depressed, girded at the base by the calyx which becomes slightly fleshy, marked from bottom to top on the outside by 4 furrows, opening at the upper part into 2 cells; both *valves* splitting at the top into 2 parts: *seeds* numerous, small, wedge-shaped, attached to a fleshy receptacle, with a pitted membranous coating.

We trust to the work we have cited for all we have said of our plant; not having had an opportunity of describing from the living plant.

Hart del. Pub by J. Ridgway 170 Piccadilly. Dec. 1. 1819. S. Watts sc.

SATYRIUM cucullatum.

Cucullate Satyrium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Jussieu gen.* 64. *Brown prod.* 1. 309. *Div. I. Anth.* adnata subterminalis persistens. *Pollinis massæ* è lobulis angulatis elasticè cohærentibus; basi affixæ. *Brown in Hort. Kew. ed.* 2. 5. 188.

SATYRIUM. Cor. ringens; *pet.* 5 antica basi connata. *Labellum* posticum, fornicatum, basi bicalcaratum v. bisaccatum. *Anth.* resupinata. *Stig.* 2 labiatum. *Brown in loc. cit.* 196.

S. *cucullatum,* foliis radicalibus binis cordato-subrotundis concavis, caulinis remotis cucullatis subretusis, floribus cernuis. *Swartz in act. holm.* 1800. 216.

Satyrium cucullatum. *Willd. sp. pl.* 4. 54. *Swartz in Schrader's neues journ.* 1. 33. *Hort. Kew. ed.* 2. 5. 196. *Thunb. flor. cap.* 1. 88.

Satyrium bicorne. *Thunb. prod.* 6.

Orchis bicornis. *Lin. sp. pl. ed.* 2. 2. 1330. *Houtt. nat. hist.* 2. *D.* 12. *St.* 455. *t.* 86. *fig.* 1. *Hort. Kew.* 3. 294. *Andrews's reposit.* 315.

Orchis lutea, caule geniculato. *Buxb. cent.* 3. 6. *t.* 8.

Fol. *radicalia bina, ovato-subrotunda, basi vaginata, amplexicaulia, concava, arcuato-nervosa, margine membranacea, subtùs pallidiora.* Scapus *pedalis, erectus, teres, purpureo-maculatus, inanis, vaginatus:* vaginæ 2-3, *remotæ, cucullatæ apice apertæ, ovatæ, subretusæ, rigidiusculæ, nervosæ.* Spica 2 *v.* 3-*pollicaris, erecta, floribus alternis, distinctis, cernuis.* Bracteæ *sub singulo flore sessiles, lanceolatæ, integræ, glabræ, reflexæ, longitudine floris.* Cor. *submonopetala, subringens, s.* petala 5, *basi coalita:* 3 *exteriora quorum unum superius magnum s. galea ovato-subrotunda fornicata apice producto obtuso, acutè carinata, posticè basi bicalcarata:* calcaria *cylindrico-subulata, deflexa, parùm curva, germine ferè longiora:* pet. 2 lateralia *linearia integra obtusa,* 2 interiora *paulò minora linearia obtusa stylo petalisque exterioribus ad basin accreta:* labellum *petalis interioribus consimile sed longius illisque basi connatum.* Anth. *globosa didyma, scrotiformis versùs apicem styli adnata* 2-*loc. loculis prope stigma dehiscentibus.* Stylus *elongatus, supernè dorso gibbus, sub galeâ reconditus, apice dilatatus concavus excisus:* stig. *infra apicem dilatatum, supra insertionem antheræ concavum.* Thunb. fl. cap. l. c.

Introduced from the Cape of Good Hope by Mr. Masson. Flowered at Kew Gardens in 1786, as we learn by a manuscript note of Mr. Dryander's, in Sir Joseph Banks's library, which also notices the fragrance of the blossom. The drawing was taken from a specimen that flowered this summer in Mr. Griffin's collection at South Lambeth, where it had been lately imported.

Mr. Brown has remarked the inaccuracy of preceding authors, in calling the flower of the *Orchideæ* "reversed," it

being in fact originally "upright," and the change of posture merely the consequence of a subsequent twisting either in the pedicle or in the germen which supports it. Hence the *labellum* from a back petal becomes a front one.

SATYRIUM is however an exception, for the middle front petal, designated by Swartz, as the labellum, has been found by Mr. Brown not to be one; the casque at the back of the flower being the true labellum, a part which is always determined by its position in relation to the stamens and placenta of the germen, by being the middlemost of the 3 inner petals, and by facing the middlemost of the 3 outer.

The genus (consisting of about 12 or 13 known species from the Cape of Good Hope, of which the present and another are all that have been seen in our gardens), according to Mr. Brown, has a ringent *corolla* with 5 front *petals* connate at the base; a vaulted two-spurred or two-pouched *labellum* situated at the back of the flower; an adnate subterminal permanent reversed *anther*, *pollen-masses* (of angular lobules held together by an elastic substance) affixed at the base, and a two-lipped *stigma*.

The flowers in all the spontaneous specimens we have seen, have changed to a blackish purple hue in drying, and if not remembered in the fresh state would pass for the representatives of a purple inflorescence in the live subjects. To this we impute Thunberg's describing the flower of the species as purple; he always describing from a dried sample whenever he treats of Cape plants. We missed the opportunity of examining the blossom while alive.

The plant published by Messrs. Loddiges for SATYRIUM *cucullatum* in the Botanical Cabinet, is a very distinct species.

Hart del.

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S. Watts sc.

PLUMBAGO capensis.

Cape Lead-wort.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Plumbagines. *Jussieu gen.* 92.
Plumbagineæ. *Brown prod.* 1. 425.

PLUMBAGO. Cal. tubulosus, plicatus, 5-dentatus, persistens. *Cor.* monopetala, hypocrateriformis, limbo 5-partito. *Stamina* hypogyna. *Stylus* filiformis: *stigmata* 5, acuta. (*Germ.* 1, liberum, monospermum, ovulo inverso ab apice funiculi è fundo germinis orti.) *Caps.* valvata: *sem.* albuminosum: (inversum: *integumento* simplici: *embryo* erectus: *radicula* supera). *Herbæ v. Suffrutices caulescentes. Folia amplexicaulia. Spicæ terminales. Flores 3-bracteati.* Brown prod. 1. 425.

P. *capensis,* foliis petiolatis oblongis integris subtùs glaucis, caule erecto. *Thunb. prod.* 33.

Plumbago capensis. *Willd. sp. pl.* 1. 837. *Thunb. fl. cap.* 2. 13. *Loddiges's bot. cab. n.* 295.

Frutescens, ascendens, 1-2-*pedalis v. ultrà.* Rami *foliis axillares, flexuosi, varicoso-nervosi, virentes, distantèr foliosi, atomis opaco-crystallizatis irrorati, supernè levissimè pubescentes cæterum glabri:* fol. *sparsa, patentia, internodiis longiora, petiolata, plus minus* 2-3-*uncialia, transversè subduplo-angustiora, oblonga, subrhombeo-ovata, apice rotundatis, petiolum versùs cuneata, more ramorum atomis exsudatis conspersa:* petiolus *marginatus:* stipulæ (*rectiùs forsan petiolorum auriculæ?*) *geminæ, perfoliato-oppositæ, herbaceæ, reticulato-venosæ, patentissimæ, subsemiorbiculato-oblatæ, repandæ, plurimùm breviores petiolo, cujus margine continuæ.* Spicæ *multifloræ, erectæ, confertæ, fastigiatæ, breves:* flores *albo-cærulescentes, hypocrateriformes, subbiunciales, adscendentes:* pedunculi 1-*flori, brevissimi v. subnulli:* bracteæ *ternæ, herbaceo-rubescentes, lineari-acuminatæ, recurvæ duplo v. ultrà breviores calyce.* Cal. *viridis, rubore passim suffusus, duplo brevior tubo corollæ,* 5-*gono-tubulosus, plicis* 5 *pallidioribus striatus, setis carnosis viscoso-capitatis patentissimis atrorubentibus echinatus.* Cor. tubus *gracilis, lineari-clavatus,* 5-*gonus, bis terve longior laciniis;* limbus *saturatiùs* 5-*radiatus, laciniis cuneato-obovatis contiguis.* Stam. & pist. *æqualia tubo:* fil. *alba, filo serico simplici vix crassiora;* anth. *violaceæ, introrsæ, sagittato-lineares, erectæ.* Germ. *subrotundum glabrum.*

The species is not found in the Hortus Kewensis, though cultivated in the Kew Collection many years back. It seems however to have been confounded in that garden with *tristis,* for we find a sample that had flowered there, matched in the Banksian Herbarium with a spontaneous one of Plumbago *tristis,* a very distinct species, and known only by the sample collected at the Cape by the late Mr. Francis Masson.

Seeds of this species were lately received by Lady De Clifford from the Cape of Good Hope; and from these the plant from which our drawing is taken, has been raised at the Nursery of Messrs. Colville in the King's Road, Chelsea. We believe it had been long ago lost in this country. Very ornamental when in flower, of easy culture, and a free blower.

Shrubby, 1-2 feet high or more: *branches* axillary, flexuose, varicosely nerved, green, distantly leaved, covered with whitish opaque particles of chrystallized gum, very slightly pubescent at the upper part. *Leaves* scattered, spreading, longer than the intervals, petioled, 2-3 inches long or more, and generally about half that breadth, oblong, subrhomboidally ovate, rounded at the end, cuneate towards the petiole, covered with the same kind of gummy particles as the branches: *petiole* narrowly bordered: *stipules* (or rather perhaps earlets of the petioles) two, facing each other by the interior edge like the base of a perfoliate leaf, herbaceous, reticulately veined, widespread, subsemiorbicularly-oblate, repand, much shorter than the petiole with the border of which they are continuous. *Spikes* manyflowered, upright, fastigiate, close, short: *flowers* of a whitish blue or french-grey, about 2 inches long, ascending: *peduncles* one-flowered, very short, or scarcely any: *bractes* generally in threes, herbaceous, rubescent, linearly taper-pointed, recurved, twice shorter than the calyx or more. *Calyx* green, reddening here and there, twice shorter than the tube of the corolla, tubular, 5-cornered, scored by five paler plaits, echinately beset with setiform viscously headed fleshy excrescences: *tube* of the corolla slender, linearly clavate, 5-cornered, two or three times longer than the segments of the limb: *limb* marked with 5 deeper blue rays, segments cuneately obovate. *Stamens* and *pistil* even with the tube: *filaments* white, scarcely thicker than the thread of a silk-worm: *anthers* violet, turned inwards, sagittately linear, upright. *Germen* nearly round smooth.

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BIGNONIA grandifolia.
Gigantic-leaved Trumpet-flower.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. BIGNONIÆ. *Jussieu gen.* 137. *Div. II.* Fructus capsularis bivalvis. Caulis arboreus aut frutescens.
BIGNONIACEÆ. *Brown prod.* 471.
BIGNONIA. *Suprà vol.* 3. *fol.* 249.

Div. Foliis conjugatis.

B. *grandifolia,* foliis conjugatis cirrhosis, foliolis oblongis, utrinque acutis, corymbo trifido terminali, pedunculis petiolis ramulisque scabris. *Willd. sp. pl.* 3. 296.

Bignonia grandifolia. *Jacq. hort. schœnb.* 3. 19. *t.* 287.

Caulis *fruticosus teres cinereus glaber ramosus debilis scandens:* rami *teretes punctis ferrugineis extantibus scabri, quales etiam petioli communes et pedunculi.* Fol. *opposita conjugata cirrhosa:* pet. comm. *crassus teres vix uncialis firmus;* partiales *glabri semunciales:* foliola *ovato vel ovata-lanceolata integerrima acuta venosula subcoriacea firmula, facie nitida et saturatè virentia, subtùs costata et pallidè virentia, à dimidio ad integrum (etiàm sesqui-) pedem (v. ultrà) longa,* 4 *ad* 8 *uncias lata (v. ultrà):* cirrhi *simplices longi validi dorsales ad apicem peti. comm^s.* Pedunc^l. *in ramulis junioribus inter* 2 *fol. opposita terminales, terni (v. solitarii paniculati) laterales* 2-3-*fidi et* 3-*flori, intermedius duplo longior et subpaniculatus cum pedunculis partialibus sæpè* 3-*floris.* Cal. *tubulosus glaber virens cum affusâ purpurâ, ore* 5-*dentato (v. truncato et subintegro hinc tantùm fisso).* Cor. *flavissima, (sub-)* 3-*uncialis inodora glabra:* tubus *brevissimus, supra calycem coarctatus in collum, atque hìc internè (ubi inseruntur filam^a.:) hirsutus:* faux *longissima valdè compressa, sic* 9 *lin^s. lata, utrinque* 2-*sulcata sulcis superioribus internè per maculas ferrugineas aspersis variegatis:* limbus 2-*labiatus patentissimus,* lac. *subrotundis æqualibus,* 3 infer. *subundulatis cum intermediâ crenatâ.* Fil. *subulata,* 2 exter. *longiora et petalo duplo breviora cum rudimento brevissimo* 5^ti *ad dorsum corollæ:* (loculis antherarum *divaricatis incumbentibus) flavo pallentibus.* Germ. *pedicellatum ovatum sulcatum glabrum glandulæ circulari nitidæque insistens:* stylus *filiform. longit. staminum:* stig. 2-*lamellatum patens.* Jacq. l. c.

The drawing of this magnificent climber was taken from a plant which flowered, late this summer, in the hothouse of Mr. Catley's botanical garden, Barnet; where we are told it grew in such luxuriance that the branches acquired nearly 30 feet in length in the space of a few months. Some of the leaves we saw measured a foot and an half in length, and 9 inches across. We believe the plant is of very recent introduction, as it is not enumerated either in the last edition of the Hortus Kewensis, or in the Hortus Suburbanus Londinensis.

The species, according to Jacquin, comes from the province of Caraccas in South America. In the plant that flowered at Vienna, the panicles were short and the peduncles generally trichotomous and 3-flowered, in Mr. Catley's plant the panicle was long, but the two side flowers on each peduncle were almost always abortive, and the main peduncle had no side branches like the specimen figured in Jacquin's work.

A high climbing shrub: *branches* round, roughened, as well as the main petioles and peduncles, with ferruginously coloured excrescences. *Leaves* opposite, conjugate, cirrhose: *main petiole* thick firm round an inch long; *partial* ones smooth half an inch long: *leaflets* ovate or ovately lanceolate, entire, pointed, veiny, firm and slightly coriaceous, deep green and bright above, paler underneath and ribbed, from 6 inches to a foot and a half long, 4-9 inches broad: *tendril* simple strong, at the back of the apex of the main petiole, (this is sometimes converted into a leaflet, when the leaf becomes ternate, instead of conjugate and cirrhose.) *Panicles* terminal between two leaves, generally in threes or trichotomous, the middle much the largest, with 3-flowered *peduncles: bractes* single linear subulate, one to every *pedicle*. *Calyx* short and tubular, obsoletely 5-toothed, green, sometimes suffused with purple, cleft on one side. *Corolla* deep yellow, nearly 3 inches long, smooth, without scent: *tube* very short, constricted above the calyx, having a shaggy ring on the inside at the mouth where the stamens are inserted: *faux* very long, much wider, compressed; *limb* bilabiate, widespread; segments roundish, equal, 3 lower subundulate, middlemost of these crenate. The fifth *stamen*, a mere rudiment. *Germen* stalked, standing on a circular fleshy disk.

We have trusted chiefly to Jacquin for the description of the species; having missed the opportunity of inspecting the fresh blossom.

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J. Lindley Esq. del. Pub by J. Ridgway 170 Piccadilly Dec. 1. 1819 S. Watts. sc.

ROSA kamchatica.
Kamtschatka Rose.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. Rosaceæ. *Jussieu gen.* 334. *Div. II.* Rosæ.
ROSA. *Suprà vol.* 1. *fol.* 46.

Div. Rami tomentosi.

R. *kamchatica*, foliis rugosis opacis, aculeis stipularibus et rameis valdè inæqualibus, fructu impubi. *Lindley MSS.*

Rosa kamchatica. *Ventenat cels.* 67. *Hort. Kew. ed.* 2. 3. 259. *Smith in Rees's cyclop. in loco.*

Frutex 3-5-*pedalis diffusus.* Rami *procumbentes, tomentosi, aculeis pilosis biformibus—stipularibus falcatis distantibus—rameis minoribus, densis, setiformibus, setis raris intermixtis.* Folia *opaca, densa;* stipulæ *grandes, semiobovatæ, pilosæ, margine crispæ, hic illic glandulosæ:* petioli *tomentosi inermes; foliola* 7 *elliptica, simpliciter serrata, serraturis apice callosis—suprà impubia, subtùs pilosa, pallidiora.* Flores *subsolitarii, rubri;* bracteæ *ellipticæ, subnudæ;* pedunculi *nudi, purpurei:* calycis tubus *globosus, nudus:* sepala *angustissimè triangularia, extùs impubia, glandulosa, apice latiora, petalis longiora:* petala *obcordata, apiculata, demùm plana.* Discus *elevatus, carnosus*—Ovaria *subnuda:* styli *pilosi, ad basin nudiusculi*—stigmatum massa *conica, nuda.* Fructus *globosus, coccineus, cerinus, sepalis brevior.* Lindley MSS.

It is remarkable that this species should have been hitherto placed in the vicinity of Rosa *cinnamomea*, which it does not resemble in the least, and that it should at the same time have been separated widely from Rosa *ferox*, which it approaches so nearly that the two can scarcely be discriminated by any describable permanent character, and yet no two species can be more truly distinct.

In *kamchatica* the leaves are less shining, and the stem less prickly than in *ferox*. In the latter the prickles immediately under the stipulæ and those of the branches are equal in size, and of nearly the same form; but in *kamchatica* the stipulary prickles are large and falcate, those of the branches setiform and minute. *Ferox* retains its leaves and their verdure till late in the autumn, those of *kamchatica* fall off soon after the summer heat has commenced.

The leaves of the specimen which Sir J. Smith described in Rees's Cyclopedia are more obovate and retuse than those

of our plant, and there are some other trifling differences; but we do not doubt the identity of our species and his.

Redouté says that his *kamchatica*, figured in Ventenat's work many years ago, has now changed to *ferox*, which he consequently has published as the same. But this must surely be a mistake, as we can perceive no tendency in the two to exhibit even intermediate appearances.

Native of Kamtschatka, and introduced by M. Cels in 1802.

Shrub 3-5 feet high, loosely spreading: *branches* trailing, cottony, with biformed hairy prickles, those under the stipules falcate and distant, those upon the branch smaller, thickset bristleshaped, with thinly mingled bristles. *Leaves* wrinkled, opaque, thickset: *stipules* large, halved obversely ovate, hairy, curled at the edge, here and there beset with glands: *petioles* cottony, without prickles: *leaflets* 7, simply serrate, with the teeth callously tipped, naked at the upper side, hairy and paler at the under. *Flowers* generally solitary, red; *bractes* elliptic, nearly naked; *peduncles* naked, purple: *tube of the calyx* round, naked: *leaflets of the calyx* very narrowly triangular, furless on the outside, beset with glands, broader at the tip, longer than the petals: *petals* obversely cordate, tipped, ultimately flat. *Disk* raised, fleshy. *Ovaries* nearly naked: *styles* hairy, rather naked at the base, *mass* of *stigmas* conic, naked. *Fruit* globular, furless, scarlet, waxen, shorter than the calycine leaflets. *Lindley* MSS.

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ROSA ferox.

Hedgehog Rose.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. ROSACEÆ. *Jussieu gen.* 334. *Div. II.* ROSÆ.
ROSA. *Suprà vol.* 1. *fol.* 46.

Div. Rami tomentosi.

R. *ferox*, foliis rugosis glabris, aculeis confertissimis rigidis, stipularibus et rameis subæqualibus, fructu impubi. *Lindley MSS.*

Rosa ferox. *Hort. Kew. ed.* 2. 3. 262. *Miss Lawr. roses. t.* 42. *Smith in Rees's cyclop. in loco.*

Rosa kamchatica. *Redouté's roses.* 1. 47. *t.* 12.

Frutex 4-*pedalis diffusus.* Rami *tomentosi procumbentes, aculeis pilosis, gracilibus, subæqualibus, flavidis, conformibus, setis intermixtis horridi.* Folia *glabra, nitida, densa, atro-viridia:* stipulæ *dilatatæ, semiobovatæ, tomentosæ, margine crispæ, glandulosæ, intùs nudæ:* petioli *tomentosi, setosi et aculeati, aculeis gracilibus rectis;* foliola 5-9 *elliptica, simpliciter (quandòque duplicatò) serrata, suprà impubia, subtùs tomentosa pallidiora.* Flores *magni rubri solitarii;* bracteæ v. *nullæ,* v. *suborbiculatæ, pilosæ, serratæ, glanduloso-ciliatæ:* pedunculi *tomentosi;* calycis tubus *obovatus, nudus;* sepala *angustè triangularia, subcomposita, glandulosa, extùs nudiuscula, petalis longiora;* petala *obcordata, concava;* discus *magìs obliteratus quàm* ROSÆ kamchaticæ, *hujus carnosus elevatus.* Ovaria *hirsuta:* styli *villosi, villis appressis.* Fructus *globosus, coccineus, cerinus, nudus ut et pedunculus.* Lindley MSS.

In the preceding article (ROSA *kamchatica)* we have noticed the chief circumstances which distinguish that from the present very distinct species. That they are most decidedly different, must be evident to any one who is acquainted with them in a living state; and on this account we are the less able to imagine what can have induced M. Thory to pronounce them the same.

Native of Mount Caucasus, and introduced in 1796 by Messrs. Lee and Kennedy, of the Hammersmith nursery.

Shrub four feet high, diffused or loosely spreading: *branches* cottony, trailing, bristled over with hairy slender yellowish prickles nearly of the same dimensions, with intermingling uniform bristles. *Leaves* smooth, shining, thickset, of a black-green hue: *stipules* widened, halved, obversely ovate, cottony, curled at the edge, beset with glands, naked

on the inner side: *petioles* cottony, bristly and prickly with slender straight prickles; *leaflets* 5-9, elliptical, simply (sometimes doubly) serrate, furless at the upper side, cottony at the under and paler. *Flowers* large, red, solitary: *bractes* either none or orbicular, hairy, serrate, with a fringe of glands: *peduncles* cottony; *tube of the calyx* obversely ovate, naked; *segments of the calyx* narrowly triangular, slightly compound, beset with glands, nearly naked on the outside, longer than the petals; *petals* obversely cordate, concave; *disk* more faintly defined than in Rosa *kamchatica*, where it is fleshy and raised. *Ovaries* shaggy: *styles* villous, villi close-pressed. *Fruit* globular, scarlet, waxen, naked as well as the peduncle. *Lindley MSS.*

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CALOSTEMMA luteum.

Yellow-flowered Calostemma.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDEÆ. *Brown prod.* 1. 296. *Sect. I.* Radix bulbosa. Flores spathacei, umbellati, rarò solitarii.

CALOSTEMMA. *Corolla* supera, infundibuliformis, limbo sexpartito. *Corona* faucis tubulosa, ore 12-dentato, dentibus alternis subulatis, antheriferis. *Antheræ* versatiles. *Germen* uniloculare, 2-3-spermum. *Stylus* filiformis. *Stigma* obtusum. *Bacca* sphærica, 1-2-sperma. PANCRATIO *quàm maximè affine, diversum, præcipuè structurâ germinis et pericarpii. Flores parvi (unciâ breviores). Semina in baccis germinantia.* Brown loc. cit. 297.

C. *luteum,* foliis scapo florido contemporaneis, lorato-linearibus; sinubus senis interstamineis coronæ edentato-excisis; antheris subæquantibus filamenta: limbo patente, laciniis oblongo-obovatis.

Calostemma luteum. *Curtis's magaz.* 2101.

Bulbus tunicatus: folia *narcissina, succulenta, carnosula, obsoletè carinata, estriata.* Scapus *bipedalis, strictìm erectus, angulato-compressus, diametro digiti minoris vel circitèr.* Umbella *multiflora:* spatha *acuminata, sphacelato-membranacea, subæqualis pedunculis vel brevior.* Flores *unciam longi vel paulò magis, lutei:* limbo corollæ *subdistantèr patente; coronâ maculis senis puniceis interstamineis ad basin notatâ; cætera ut in* purpureo, *infrà No.* 422 *videndo.*

The present is, we believe, the first season that the flowers of any of the genus have been seen in our gardens.

From outward appearance, the two species we have seen, would be without hesitation ascribed to PANCRATIUM; yet dissection displays in their one-celled fruit a neater and better defined distinction than has been yet obtained for any other group of this order. This circumstance was first observed by Mr. Brown, and has been made the foundation of CALOSTEMMA. The difference induced in habit is slight, but still manifest; the corolla is smaller than in PANCRATIUM, the segments of the limb converge campanulately, and do not extend themselves radiately as there; these are likewise obversely oblong, not tapered upwards as in most PANCRATIUMS, and approach in this respect nearer to those of NARCISSUS. The coronal web is narrower between the stamens than it generally is in PANCRATIUM.

Luteum, if really distinct, is certainly very near to *purpureum*. The chief differences we perceived, consisted in the foliage of *luteum* being contemporaneous with the inflorescence, while in *purpureum* it does not appear till long after the decay of the flower; in the anthers of *luteum* being nearly equal to the naked part of the filaments, in *purpureum* twice shorter; in the interstamineous sinuses of the coronal web being unindented in *luteum*, in *purpureum* bidentate; in the segments of the limb of the corolla in *luteum* expanding wider and being narrower than in *purpureum*, where the flower is altogether smaller. Could we have compared fresh plants of the two, perhaps other marks of distinction might have occurred.

The three species as yet known are natives of New Holland. The present was observed by the party who performed the late expedition to the south-west of the colony, beyond the Blue Mountains. The two others by Mr. Brown.

The drawing was taken from a plant that flowered in the fine collection of Mr. Griffin, at South Lambeth. It ripened its fruit, of which a representation is given in the annexed plate. The seed was about the size, colour, and consistence of a largish pea, at the period we saw it. The seed-vessel consisted of a thin sphacelate membrane.

A greenhouse plant.

Pub by J. Ridgway 170 Piccadilly Jan 1. 1820

J. Watts sc.

CALOSTEMMA purpureum.

Purple-flowered Calostemma.

HEXANDRIA MONOGYNIA.

Nat. ord. AMARYLLIDEÆ. *Brown prod.* 1. 296. *Sect. I.* Radix bulbosa. Flores spathacei, umbellati, rarò solitarii.

CALOSTEMMA. Suprà fol. 421.

C. *purpureum*, scapo florido foliis (lorato-linearibus) præcociore, coronæ dentibus sterilibus triangularibus. *Brown prod.* 1. 298.

Calostemma purpureum. *Curtis's magaz.* 2100.

Bulbus *tunicatus, subrotundus magnitudine pugni.* Scapus *sesqui-bipedalis, strictus, subangulari-compressus, folia præveniens, proportione florum robustus.* Umbella *multiflora:* pedicelli *graciles, flexiles, compressiusculi, æquales corollæ vel longiores:* corolla *infundibuliformis roseo-punicans, ¾ partes unciæ longa vel circa; tubus pallescens, sexstriato-angulatus, duplo fermè brevior limbo;* limbus *sexpartitus, turbinato-campanulatus, laciniis spathulato-obovatis, concavis, mucronatis:* corona *⅓ brevior limbo, angustè turbinata, viridis, membranis interstamineis purpureis angustissimis bidentatis haud rarò medio fissili-partitis quandò filamenta alata utrinque unidentata uti* ORNITHOGALORUM ALLIORUMQUE *plurimorum evadunt.* Fil. *(vel rectiùs horum portiones quæ exsuperant coronæ membranam) viridia subulata conniventia duplo breviora coronâ:* anth. *versatiles, oblongæ, bis breviores filamentis, fulvo-flavicantes.* Stylus *compresso-filiformis, virescens, æqualis corollæ:* stigma *simplex:* germen *subglobosum,* 1-*loculare, magnitudine vix duplâ grani sinapeos.*

Native of New Holland, where the species was originally observed by Mr. Brown. Introduced about a year ago. We saw fine plants of it at the nursery of Messrs. Colville, in the King's Road, Chelsea, among other bulbous species from the same country.

Scape from a foot and a half to two feet high, stiff, somewhat angularly compressed, stout in proportion to the size of the flowers, forerunning the foliage. *Umbel* many-flowered: *pedicles* slender, flexile, slightly compressed, equal to the corolla or longer: *corolla* funnelform, of a rosy purple colour, about three fourths of an inch long: *tube* pale, scored and angular, nearly twice shorter than the limb; *limb* sixparted, turbinately campanulate, segments spatulately obovate, concave, mucronate; *crown* (or monadelphous portion of the stamens) a third shorter than the limb, narrowly turbinate or cucullate, green, insterstami-

neous membranes very narrow purple bidentate, often separating down the middle, when the filaments assume the appearance of so many distinct winged ones with a tooth on each side, like those in most of the ORNITHOGALUMS and ALLIUMS, instead of forming a continuous coronary web as in PANCRATIUM; *filaments* (or those parts of them which are extended beyond the web) subulate, green, converging, twice shorter than the crown: *anthers* oblong, versatile, twice shorter than the filaments (that is than the part of them beyond the web), tawnyish yellow. *Style* compressedly filiform, greenish, equal to the corolla: *stigma* simple; *germen* nearly globular, one-celled, not much above twice the size of a seed of Mustard.

IN November last the plant of CALOSTEMMA *luteum*, which afforded the figure of the preceding article, produced another flowering stem at Mr. Griffin's; the former remaining perfect, though the fruit had opened, and the seeds were germinating at its foot. We observed that the flowers possessed a strong pungent smell, that reminded us of Penny-Royal (MENTHA *Pulegium*). The interstamineous sinuses should have been termed obsoletely bidentate, rather than edentate, as we have called them in the description given in the article of that species.

Hart del. Pub by J. Ridgway 170 Piccadilly Jan. 1. 1820. J. Watts sc.

ARTABOTRYS odoratissimus.

Fragrant Artabotrys.

POLYANDRIA *POLYGYNIA.*

Nat. ord. ANONACEÆ. *Decand. syst. nat.* 1. 465. *Div. III.* Carpellis plurimis distinctis.

ARTABOTRYS. Cal. 3-partitus. *Petala* sex. *Stamina* hypogyna. *Ovaria* distincta, disperma. *Baccæ* dispermæ (abortione quandoque monospermæ). *Semina* collateralia erecta exarillata albumine rimoso. Frutices *decumbentes.* Folia *alterna, integerrima, exstipulata.* Pedunculi *extraalares suboppositifolii pauciflori* pedicellis (1-2) *lateralibus, apice uncinati.* Brown MSS.

OBS. *Characteribus suprà datis proximè accedit* KADSURÆ *cujus baccæ dispermæ seminibus collateralibus paritèr distinctæ receptaculo carnoso insidentes fide iconis et descriptionis Kæmpferi* (amœn. exot. 476.); *sed* KADSURA *vix* Anonacea *ob summam affinitatem cum* UVARIÂ heteroclitâ Roxb. flor. ind. ined. *cui albumen indivisum nec processubus membranæ interioris rimosum auctoritate descriptionis operis citati.* Brown MSS.

A. *odoratissimus*, petalorum laminis planis lanceolatis, foliis oblongis acuminatis. *Brown MSS.*
Uvaria odoratissima. *Roxburgh flor. ind. ined.*
Unona uncinata. *Dunal anonacées.* 105. *t.* 12. *et* 12. *a. Decand. syst. nat.* 1. 490.
Unona hamata. *Dunal anonacées.* 106. *t.* 27. *Decand. syst. nat.* 1. 491.
Unona esculenta. *Dunal anonacées.* 107. *Decand. syst. nat.* 1. 491.
Uvaria esculenta. *Rottler in nov. act. soc. nat. cur. berol.* 4. 201.
Uvaria uncata. *Loureiro cochin.* 349.
Anona unincata. *Lamarck encyc.* 2. 127.
Annona hexapetala. *Linn. suppl.* 270. *Hort. Kew.* 2. 253. *ed.* 2. 3. 335. *Willd. sp. pl.* 2. 1266.

The present plant, after various shiftings from one inappropriate group to another, according to the wavering views of different botanists, is now placed in a new genus constituted for its reception by Mr. Brown; to whom the generic name has been suggested by the curious grapple or tendril belonging to the peduncle, by which the growing fruit is conveniently suspended on the nearest support during its advance to maturity, and the slender flexile branch relieved from the disproportionate burden, which would be otherwise laid on the ground.

The synonymy is also a valuable contribution from Mr. Brown; and presents a critical view of the scientific history of the species.

The shrub is native of China and the East Indies, where

it is cultivated as an ornamental covering for walls, as well as on account of the fragrance of the blossom, diffusing an odour like that proceeding from the finer kinds of ripe fruits.

The drawing was taken in the autumn before last, at the Dowager Lady De Clifford's garden, Paddington, where the fruit was produced, in the hothouse, probably for the first time in Europe. The flower which is seen at the bottom of our plate was obtained from the same source. Under a warmer sun the bloom is described as yellow, not green, as it proves to be with us: the fruit is likewise said to attain that colour when well ripened, and is sometimes much larger than in our specimen; but never eatable.

Introduced in 1758 by the then Duke of Northumberland. In Mr. Brown's opinion the genus is intermediate between Kadsura and Guattiera; the former of which may probably prove not to be a genuine co-ordinate of the *Anonaceæ*, if it should turn out, as Mr. Brown has reason to suspect from a dissection of the seed shown in the drawing of an analogous species, that the albumen is even and entire, instead of being indented and scored by the processes of the interior membrane of the seminal covering as throughout this order.

In Unona, the genus where our plant was placed by M. Decandolle, the petals are of unequal depths, the seedvessel is many-seeded, the seeds disposed in one rank or one above the other, and the stalk not furnished with any prehensile tendril or grapple: in Artabotrys the petals are of equal depths, the germen two-seeded growing up into a 2-(or sometimes accidentally solitary-)seeded fruit, the seeds without an arillus, placed side by side, not one above the other, and the peduncle furnished with a grapple or crooked tendril for its peculiar support, not as in most other tendril-bearing plants, for the assistance of the branches in their ascent.

We understand that 3 species of Artabotrys besides the present, are already known; one of which with curiously small flowers has been recently discovered by Dr. Horsfield during his residence in Java, and is in the rich Herbarium that gentleman has brought to this country.

In Anona the whole bunch or head of berried seedvessels is concreted into a single fruit, something in the way of the Pine-Apple.

In Uvaria the berries of the bunch or head of fruit are distinct as in the present genus, but are many-celled.

J. Lindley Esq. del. Pub. by J. Ridgway 170 Piccadilly Jan. 1. 1820 S. Watts. sc.

ROSA alpina.

Common alpine Rose.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. ROSACEÆ. *Jussieu gen.* 334. *Div. II.* ROSÆ.
ROSÆ Suprà vol. 1. *fol.* 46.

Div. Inermes.

R. *alpina*, stipulis adnatis, fructû solitario pendulo elongato. *Lindley MSS.*
(α) *elatior*, foliolis 5-9, floribus roseis. *Lindley.*
Rosa alpina. *Lin. sp. pl. ed.* 2. 1. 703. *Jacq. austr.* 3. 43. *t.* 279. *Allion. ped.* 2. 139. *Miss Lawr. roses. t.* 30. *Willd. sp. pl.* 2. 1075. *Hort. Kew. ed.* 2. 3. 265. *Smith in Rees's encyc. in loc. Lindley's mon. ined.*
Rosa inermis. *Mill. dict. ed.* 8. *n.* 6.
Rosa lagenaria *Villars dauph.* 3. 553. *Willd. sp. pl.* 2. 1075. *Smith loc. cit.*
Rosa hybrida. *Villars dauph.* 3. 554.
Rosa biflora. *Krock siles.* 2. 151?
Rosa hispida. *Krock siles.* 2. 152. *Pohl fl. bohem.* 2. 174.
Rosa rupestris. *Crantz austr.* 85. n. 6.
Rosa pyrenaica. *Gouan ill. t.* 19. *Willd. sp. pl.* 2. 1076. *Smith l. c.*
Rosa pyrenaica alpina. *Jacq. hort. schœnb.* 4. *t.* 416.
Rosa turbinata. *Villars dauph.* 3. 550.
R. inermis, foliis septenis glabris, calycis segmentis indivisis. *Hall. helv. n.* 1107.
(β) *pygmæa*, pumila, foliolis 5-9, floribus roseis. *Lindley.*
Rosa pimpinellifolia. *Villars dauph.* 3. 553.
Rosa glandulosa. *Billardi in act. taurin.* 1790. 230.
(γ) *pendulina*, elatior, foliolis 7-13, floribus rubris. *Lindley.*
Rosa pendulina. *Willd. sp. pl.* 2. 1076. *Mœnch. meth.* 689? *Miss Lawr. roses. t.* 91. *Hort. Kew. ed.* 2. 3. 265. *Smith loc. cit.*
Rosa alpina pendulina. *Redouté's roses.* 1. 57. *t.* 17.
Rosa inermis. *Andrews's roses.*

Frutex 2-8-*pedalis:* rami *patentes v. erecti, fusco-virides, sæpiùs glaucescentes, inermes, rarissimè aculeis radices versùs tenuissimis, v. rameis, tum stipularibus.* Folia *densa, patentia, opaca:* stipulæ *planæ, angustæ, apice paulò dilatatæ, impubes, glanduloso-ciliatæ:* petioli *impubes, densè glandulosi, setis inæqualibus intermixtis:* foliola 5-13, *ovata, utrinque acuminata, simpliciter v. duplicato serrata, omninò impubia, subtùs cæsia, costâ aculeolis sæpè scabriusculâ.* Flores *erecti, ruberrimi v. rosei, subsolitarii;* pedunculi *inermes v. setosi;* calycis tubus *elongato-ovatus, nudus aut setosus;* sepala (foliola calycina) *ovata, acuminata, simplicia, apice quandoque foliacea, extùs pilosa, inermia v. setosa.* Petala *obcordata, erecta, concava:* discus *obliteratus,* staminodia *sæpè valdè conspicua, depressa:* stigmatum massa *convexa, exserta.* Fructus *coccineus, elongatus v. obovatus, rostratus, cernuus.* Lindley MSS.

This beautiful ornament of the Alps of Switzerland and the temperate latitudes of Europe forms the type of a small

group of species, with little affinity to each other, except in the circumstance of being almost universally deprived of prickles. It would therefore be better perhaps to refer the present plant to the neighbourhood of Rosa *rubella*, with which it has many points of resemblance, and from which it does not very materially differ. It would seem from Pallas's account of his Rosa *alpina* that he has actually confounded two different things under that name;—one not perhaps differing from R. *alpina* of Europe, and the other nearly related to R. *rubella*; at least, if the last be the same as what Marschall von Bieberstein has called Rosa *pygmæa*, and which does not appear, as far as we can judge from the description, essentially different from that plant.

Shrub 2-8 feet high: *branches* spreading or upright, dark-green, generally with a glaucous hue, without thorns or prickles, or very rarely having prickles towards the root or on the branches, then being stipulary. *Leaves* thickset, spreading, opaque: *stipules* flat, narrow, a little widened at the end, unfurred (destitute of all hairy or villous substance), glandularly ciliate: *petioles* unfurred, with thickset glands and intermingling unequal bristles: *leaflets* 5-13, ovate, acuminate at both ends, simply or doubly serrate, quite bare, grey-blue underneath, midrib often roughened over with small prickles. *Flowers* upright, either very red or rose-coloured, usually solitary; *peduncles* without prickles, or bristly; *tube of the calyx* elongatedly ovate, bare or with bristles; *leaflets* ovate, acuminate, undivided, sometimes foliaceous at the end, on the outside hairily furred, without prickles, or bristly. *Petals* obcordate, upright, concave: *disk* obliterated, *staminodia* (the part supporting the stamens) often very conspicuous, flat: *stigma-mass* convex, protruding. *Fruit* scarlet, elongated or else obversely ovate, rostrate, cernuous. *Lindley MSS.*

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ROSA multiflora.

Bramble-flowered Rose.

ICOSANDRIA *POLYGYNIA*.

Nat. ord. ROSACEÆ. *Jussieu gen.* 334. *Div. II.* Rosæ.
ROSA. Suprà vol. 1. *fol.* 46.

Div. Rami impubes, aculeati, setis nullis, stylis in columnam elongatam coalitis. Lindley MSS.

R. *multiflora*, subscandens, foliolis quinatis, lanceolatis, mollibus, rugosulis, pedunculis calycibusque tomentosis. *Lindley MSS.*

Rosa multiflora. *Thunb. jap.* 214. *Willd. sp. pl.* 2. 1077. *Hort. Kew. ed.* 2. 3. 265. *Curtis's magaz.* 1059. *Smith in Rees's cyclop. in loco. Lindley's monograph. ined.*

Rosa flava. *Donn cant. ed.* 4. 121; *fide Smith.*

Frutex 12-15-*pedalis:* rami *flagelliformes, subscandentes, impubes, rubro-virides, aculeis geminis stipularibus aduncis æqualibus.* Fol. *valdè opaca, cinerea;* stipulæ *lineares margine pinnatifidæ, subtùs tomentosæ;* petioli *villosissimi;* foliola 5-7 *subimbricata, lanceolata, rugosa, simpliciter serrata, utrinque tomentosa.* Flores *pulchrè rubescentes, densè corymbosi;* bracteæ *lineares, dentatæ, extùs tomentosæ;* pedunculi, calycis tubus *depressus;* sepalaque *simplicia, ovata, densè tomentosa;* petala *semper hortis multiplicia.* Styli *dilatati pilosi in columnam elongatam coaliti.* Fructus *ignotus.* Lindley MSS.

Thunberg was the discoverer of this very pretty species, near Nagasaki, in Fisher's Island, at Papenberg, &c. &c. in Japan. No one has since been so fortunate as to meet with it in a wild state.

Introduced by Mr. Thomas Evans in 1804; and is now cultivated in the open air against walls and along trellis-work.

It is very readily distinguished from all the other species with columnar styles, by its lanceolate leaves, which are slightly wrinkled and soft to the touch; but more particularly by the dense hairiness of the calyx and its peduncle, on which account we are disposed to make the singular coherence of styles the character of species rather than of a group; because there are some individuals from the East Indies in the Banksian Herbarium, which possess little besides this character in common with those with which

they must be associated if this mode of division be observed.

A remarkable variety is cultivated in some of the nurseries under the name of R. *Roxburghii;* it is weaker in its manner of growth, has very narrow leaves and little disposition to flower.

Shrub 12-15 feet high: *branches* runnerlike, somewhat climbing, furless, rubescently green, with two crooked equal stipular prickles. *Leaves* very opaque, cinereous, *stipules* linearly pinnatifid (or feathercleft) at the edge, cottony underneath: *petioles* highly villous: *leaflets* 5-7 somewhat imbricate, lanceolate, wrinkled, simply serrate, cottony on both sides. *Flowers* of a delicate blush red, closely corymbose; *bractes* linear, toothed, cottony on the outside; the *peduncles*, the depressed *tube of the calyx,* the simple ovate *calycine leaflets* all of them covered with a thick cottony fur: *petals* always multiplied (or in many rows) in the plants we see in our gardens. *Styles* dilated hairy grown together into an elongated column. *Fruit* unknown. *Lindley MSS.*

Hart del.   Pub. by J. Ridgway 170 Piccadilly Jan. 1. 1820.   I. H.

AMARYLLIS australasica.

New Holland Amaryllis.

HEXANDRIA *MONOGYNIA.*

Nat. ord. NARCISSI. *Jussieu gen.* 54. *Div. II.* AMARYLLIDEÆ. *Brown prod.* 1. 296. *Sect. I.*
AMARYLLIS. Suprà vol. 3. *fol.* 226.

Div. Bi-multiflora: tubo nudo. Folia bifaria. Nob. in journ. of scien. and the arts. 2. 356.

A. *australasica*, multiflora; foliis lineari-loratis; corollâ infundibuliformi, limbo nutante subbilabiato, laciniis lanceolatis subæqualibus, recurvo-distantibus, tubo triquetro subæquilongis; pedunculis germine plurìes longioribus, tubo corollæ isoperimetris v. crassioribus.

Bulbus *tunicatus.* Folia *plura, angusto-lorata, acuminato-attenuata, convoluto-canaliculata, erecto-recurva, flexilia, æqualia scapo* v. *longiora.* Spatha *acuminata, sublongior pedunculis.* Flores *fragrantes, candidi, subsesunciales:* pedunculi *rotundatè trigoni, pallidè virentes, erecti, robusti.* Germ. *viride, oblongum, plurìes brevius pedunculo:* tubus *pallidè virens, triqueter, densè striatus, lineari-elongatus, subtriuncialis, crassitudine duplâ pennæ corvinæ v. circà:* limbus *turbinato-campanulatus, albus, subtriuncialis fauce intùs flavescens, laciniis* $\frac{1}{4}$ *unciæ latis v. circà, supernè recurvis, acuminatis, disco externè virentibus carinatisque, lateralibus* labii inferioris *subangustioribus lineari-lanceolatis.* Fil. *laxiùs fasciculata, declinato-assurgentia, albida, limbo ex unâ quartâ parte breviora, gracilia, alternè longiora.* Stylus *subexsertus, albidus, crassitudine ferè filamentorum, obtusè triqueter, tristriatus:* stigmata *obsoletè trina v. in unum coadunata.* Capsula, *ex statû interaneo germinis conjectantes, bulbisperma?*

A newly discovered species, which has flowered this summer for the first time in our gardens. The knowledge of it is due to a late expedition into the western interior of New Holland, in the course of which the plant was found under Macquarie Range in E. longitude about 146, and about 33 of S. latitude, a region not long since deemed inaccessible from the side of the Colony.

The drawing was taken from a plant that flowered in Mr. Barnard's hothouse at Bexley; where the CALOSTEMMA *purpureum* had likewise blossomed in great perfection. No other species of this genus has been yet observed in all Australasia.

Bulb tunicate. *Leaves* several, narrowly lorate, acuminately tapered, convolutely channelled, upright, recurved

towards the upper part and flaccid. *Spathe* acuminate, rather longer than the peduncles. *Flowers* several, white, fragrant, subbilabiately funnelform, about 6 inches long: *peduncles* roundedly 3-cornered, pale green, as thick as the tube of the flower or thicker. *Germen* green, oblong, several times shorter than the peduncle. *Tube* of the *corolla* pale green, about the length of the segments, two or three times thicker than a crow-quill, linearly elongated, 3-cornered, closely scored: *limb* turbinately campanulate, nodding, white, about three inches deep, yellowish within at the faux, upwards recurved and spreading; *segments* lanceolate, nearly equal, standing apart from near the faux, three fourths of an inch broad or thereabouts, taper-pointed, keeled and green along the middle at the back; *two lower side ones* linearly lanceolate and rather narrower than the rest. *Filaments* loosely fasciculate, first declined then ascending, whitish, about one fourth shorter than the limb, filiform, 3 alternate ones longest, all slender. *Style* rather longer than the corolla, of the same colour as the filaments and nearly of the same thickness, obtusely 3-cornered, fluted: *stigmas* three, very shallow.

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AMORPHA fruticosa.
Wild Indigo.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. VI.*=PAPILIONACEÆ. *Brown in app. to Flind. voy.* 2. 552.

AMORPHA. *Cal.* 5-dentatus. *Vex.* ovatum concavum; *alæ* nullæ nec *carina.* *Stam.* basi monadelpha. *Legum.* minimum ovatum tuberculatum dispermum. (*Corolla* monopetala in LEGUMINOSIS peculiaris). *Juss. l. c.* 357. Frutices suffruticesve: fol. *pinnata, (pellucenti-) glandulosa; stipulæ setaceæ, minutæ, tùm partiales tùm generales, à foliis et foliolis distinctæ:* flores *spicati, numerosi, parvi, sæpiùs cærulei; spicæ solitariæ, aggregatæ et terminales:* legumen *glandulosum:* stylus *pubescens:* stigma *glabrum.* Nuttall gen. 2. 91; (ex anglico).

A. *fruticosa,* glabra, subarborescens; foliis petiolatis, spicis aggregatis elongatis, calycibus nudiusculis pedicellatis, dentibus 4 obtusis, unico acuminato, leguminibus oligospermis. *Pursh amer. sept.* 2. 466.

Amorpha fruticosa. *Lin. sp. pl. ed.* 2. 2. 1003. *Mill. dict. ed.* 8. *Duham arb.* 1. 46. *tab.* 16. *Walt. carol.* 179. *Schmidt arb.* 1. 28. *t.* 30. *Michaux bor. amer.* 2. 64. *Hort. Kew.* 3. 17. *ed.* 2. 4. 265. *Schkuhr handb.* 197. *Willd. sp. pl.* 3. 970. *Nuttall gen.* 2. 91.

Amorpha. *Hort. cliff.* 353. *t.* 19. *Mill. ic.* 18. *t.* 27.

Pseudo-acacia virginiana non spinosa. *Probst hort. bosian.* 17. 37. 39; *cum icone.*

Barba jovis americana, pseudo-acaciæ flosculis purpureis minimis. *Hort. angl.* 11. *t.* 4.

vulgaris. (α) foliis mucronatis, calycibus glabris. *Pursh.*
emarginata. (β) foliis emarginatis calycibus canis. *Pursh.*
angustifolia. (γ) foliis lineari-ellipticis basi subacutis. *Pursh.*

A North American genus, remarkable among its papilionaceous co-ordinates for a corolla of one petal; the vexillum alone being present, while the alæ and carina are entirely wanting.

The present species belongs to Carolina and Florida, where it is known by the name of "Wild Indigo;" an inferior kind of blue dye having been formerly made by the inhabitants from the young shoots. Introduced in 1724, by Mr. Mark Catesby. The drawing was taken this summer, at the nursery of Messrs. Colville, in the King's Road, Chelsea. It is cultivated in the open ground, and flowers about June in favourable seasons.

The following description is chiefly from the french of the Chevalier Lamarck in his Encyclopédie Botanique.

A bushy-headed shrub, from 8 to 12 feet in height: bark of the trunk greyish brown, of the larger branches ash-coloured: *bud* small short and obtuse: young shoots, petioles, peduncles and calyxes downy, or nearly tomentose. *Leaves* pinnate with an odd one, 7-9-paired, *leaflets* oval, obtuse, green, naked above, furred underneath, from an inch to an inch and half in length, shortly petioled: *stipules* in pairs at the base of both the general and the partial petioles, small, subulate. *Spikes* terminal, 4-6 inches long: *flowers* small, violet-blue; *pedicles* shorter than these. *Calyx* permanent, shallow, turbinate, scored, cleft at the border into 5 short teeth. *Corolla (vexillum)* oval, concave, obtuse, full as large again as the calyx. *Stamens* longer than the corolla; *filaments* straight, almost entirely detached from each other, fascicled, a little spreading towards the top; *anthers* of a rich deep yellow colour, making a fine contrast with the deep blue corolla. *Germen* oval; *style* subulate. *Pod* from 2 to 2 lines and a half long, slightly curved, besprinkled with small glandular tubercles, slightly villous, terminated by a small point formed by the remnant of the style: *seeds* 2, reniform.

We have 4 species upon record, of which only the present was known to Linnæus. *Nana (microphylla. Pursh)* reaches only from 6 inches to a foot in height, and is found, according to Mr. Nuttall, on the woodless grassy hills of the Missouri, from the River Platte to the Mountains diffused like heath in Europe over hundreds of acres in succession, seeming to be the only upland shrub capable of withstanding the peculiarities of that climate. The most ornamental species is *canescens;* found from the banks of the Fox River and the Ouiconsin to the Misisippi; round St. Louis, in Louisiana, and on the banks of the Missouri, probably to the Mountains.

The technical distinctions principally relied on to mark our present species from the rest seem to be, its having only one of the calycine teeth pointed, instead of all being so, and a two-seeded, instead of a one-seeded, pod.

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GESNERIA prasinata.

Ringed-stemmed Gesneria.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. CAMPANULACEÆ. *Jussieu gen.* 163. *Div.* Antheræ distinctæ.
GESNEREÆ. *Richard et Jussieu in ann. mus.* 5. 428.
GESNERIA. Suprà vol. 4. *fol.* 329.

G. *prasinata,* tota pubescens; foliis ovali-lanceolatis, suprà velutino-hirtis: petiolis annulo subarticulatìm insertis, paniculâ subfoliosâ, floribus subgeminatis, fauce campanulatâ subtùs inflatâ, limbo brevi obliquo revoluto subæquali.

Caulis *fruticosus, erectus, annulatus;* rami *supernè subsucculenti, estriati, teretes, villoso-hirti, distantèr foliosi, infernè fuscescentes.* Fol. *crassiuscula, decussata, patentia, acuminata, basi attenuata, costato-nervosa, serrata,* 4-5-*uncialia, subtùs sericeo-tomentosa, albicantia, varicoso-nervosa:* petiol. *brevis, crassus, subterés, convoluto-canaliculatus, annulo prominente subarticulato-insertus.* Pedunculi *oppositi, crassi, brevissimi, subbiflori, in foliis sensìm bracteaceis atque caducis axillares;* pedicelli *longiores, ascendentés, robusti.* Cal. *herbaceus, semisuperus,* 2-3-*plo brevior corollâ, velutinus, foliolis lanceolatis acuminatis æqualibus.* Cor. *viridis, nigro-punctata, sesquiuncialis v. ultrà, subbilabiato-infundibuliformis, foris villosissima;* tubus *cylindricus, basi circumcircà protuberans, subæqualis fauci;* limbus *obliquus, fauce subduplo brevior, laciniis subrotundis.* Fil. *glabra: quinti rudimentum scarioso-membranaceum subulatum brevissimum:* anth. *cruciato-coadunatæ, receptaculis loculorum glanduloso-crassis:* pollen *ochroleucum.* Germ. *oblongum, rostrato-pyramidatum, obtusè* 3-*gonum,* 3-*sulcum, subtilissimè velutinum, crassè rostratum, infernè pallens, basi serto cinctum brevi glanduloso sublutescente* 5-*dentato, dentibus ovatis æqualibus obtusis basi* callis v. carunculis 5 *fuscis interstinctis, pone apicem poro foratis sub anthesi guttâ limpidâ madente:* stylus *rostri germinis continuus.*

We do not find our plant reducible to any established species within our research. It flowered this summer at Wormleybury, for the first time. The specimen for the drawing was kindly sent us by Sir Abraham Hume.

Native of the Brazils.

Stem shrubby, upright, prominently ringed; *branches* somewhat succulent, round, furrowless, roughly villous, distantly leaved, when full grown brown. *Leaves* thickish, decussately opposite, spreading, ovally lanceolate, taper-pointed, narrowed at both ends, ribbed, serrate, 4-5 inches long, the fur on their upper side close and hard, like that of plush, on the under side soft and glossy, white: *petioles*

thick, short, nearly round, involutely channelled, subarticulately fixed to a projecting ring of the same colour as the bark and deriving from thence the appearance of stemclasping. *Panicle* partly leafy, partly foliaceously bracteate, with the flowers in opposite pairs: *peduncles* thick, very short or nearly obsolete, generally two-flowered, axillary in the leaves, which gradually decrease to mere *bractes; pedicles* longish, one-flowered, stiff, ascending round, robust. *Calyx* semisuperior, herbaceous, twice or thrice shorter than the corolla, furred; *leaflets* lanceolate acuminate equal. *Corolla* green, black-dotted, about $1\frac{1}{2}$ inch long or more, subbilabiately-funnelform, with a closely villous nap on the outside: *tube* cylindric, about the length of the *faux*, protuberant round the base; *faux* campanulate, inflated underneath; *limb* slanting, short, revolute, nearly equal, segments almost round. *Filaments* smooth, the rudiment of the fifth scariose membranous subulate very short: *anthers* cruciately coadunate (united into the form of a cross): *pollen* cream-coloured. *Germen* oblong, pyramidal, rostrate (beaked), bluntly 3-cornered, scored, velvetly furred, thickly rostrate and green above, pale below, surrounded at the base by a shallow glandular yellowish 5-toothed crown, the teeth ovate equal obtuse separated at the base by 5 brownish caruncles or calli. When the flowers are open we perceive a limpid drop standing at the back just below the point of each tooth, and issuing from a fine porelike perforation in the same place. *Style* continuous with the beak of the germen.

We have observed fine plants of this species in the hothouse at the nursery of Messrs. Colville, in the King's Road; but which have not yet flowered.

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COMBRETUM purpureum.

Scarlet Combretum. Madagascar Aigrette.

OCTANDRIA (*v. DECANDRIA*) *MONOGYNIA.*

Nat. ord. ONAGRÆ. *Jussieu gen.* 317. *Div. III.*

COMBRETACEÆ. *Cal.* superus: limbo 4-5-fido, æquali. *Pet.* 4-5, vel nulla. *Stam.* 8-10; quandoque laciniis calycis æqualia et cum iisdem alternantia. *Germ.* 1-loc., *ovulis* 2-4, ab apice loculi pendulis absque receptaculo communi vel columnâ centrali: *stylus* 1: *stig.* 1. *Pericarp.* 1-spermum, clausum, figurâ et texturâ varium, Drupa v. Samara. *Sem.* exalbuminosum. *Embryo* cotyledonibus sæpiùs involutis: plumula inconspicua. *Arbores* v. *Frutices. Fol. simplicia, integra, exstipulata, alterna, nunc opposita, rarò punctato-pellucida. Flores spicati axillares.* Brown in append. to Flind. voy. 2. 548.

COMBRETUM. Cal. campanulatus, limbo 4-5-dentato deciduo. *Pet.* 4-5, parva. *Stam.* plurimùm exserta, *antheris* oblongis. *Stig.* 1. *Caps.* oblonga, 4-5-angularis angulis alatis membranaceis, 1-loc., 1-sperma. *Frutices sarmentosi; fol. opposita; flores spicati, v. spicato-paniculati, terminales et axillares spicis oppositis.* Juss. l. c. 320.

C. *purpureum*, floribus decandris, spicis laxis paniculatis. *Lamarck encyc.* 1. 727; (*sub* COMBRETO coccineo).

Combretum purpureum. *Vahl symb.* 3. 51. *Curtis's magaz.* 2102. *Willd. sp. pl.* 2. 319.

Combretum coccineum. *Lamarck loc. cit. et illustr. t.* 282. *f.* 2.

Cristaria. *Sonnerat it.* 2. 247. *t.* 140.

Frutex *sarmentosus floribus pulcherrimis.* Fol. *opposita, petiolata, ovalia acumine brevi, integerrima, glabra, firmula, 3-4-uncialia latitudine 2-unciali v. majore.* Paniculæ *racemosæ, terminales, coccineæ.* Stam. 10, *longè exserta.* Caps. *alis 5 tenuibus membranaceis.* Lam. loc. cit. (ex gallicò).

The natural order, in which our plant now ranks and for which its genus has suggested the name, was first proposed by Mr. Brown in the Prodromus of the Flora of New Holland, and subsequently defined by him as above, in the General Remarks on the Botany of Terra Australis. A principal character of the group consists in the one-celled germen with two or more ovula simply pendulous from the upper part of the cavity, not inserted, as in the confining *Santalaceæ*, into a central receptacle or column. The order, Mr. Brown observes, appears to be connected with the *Myrtaceæ* through Jussieu's genus GUIERA, which has the structure of the *Combretaceæ*, and the foliage dotted with pellucid glands as in the *Myrtaceæ.*

The present species is not recorded in either edition of the Hortus Kewensis, and we believe has been very recently introduced. Native of Madagascar: much cultivated in the Isle of France on account of the beauty of its flowers. The drawing was taken from a very perfect sample furnished by Messrs. Colville, who are in possession of a stock of the species, which they cultivate with success in the hothouse of their nursery in the King's Road, Chelsea.

Since it was in vain to attempt the representation of the entire panicle of flowers of the natural size, even in a double plate, we have delineated a portion of it as large as in nature, subjoining the outline of the whole specimen in miniature. Being a very ornamental climber, a free flowerer, and of easy culture, we have no doubt it will before long become general in the stoves of our collections.

A smooth climbing *shrub: branches* round brachiate. *Leaves* opposite, petioled, thickish or slightly coriaceous, oval, shortly acuminate or abruptly taper-pointed, quite entire, smooth, 3-4 inches long, two across or more, those immediately under the spikelets sharp-pointed. *Panicles* racemous, brachiate, outspread; *peduncles* 6 inches long or more; *flowers* scarlet, numerous, loosely scattered, every one with a setaceous *bracte* at the base of its pedicle. *Calyx* campanulate. *Stamens* 10, twice the length of the corolla. *Seeds* roundish, retuse, polished, of a shining gold colour.

The description is chiefly from Vahl, as we missed the opportunity of inspecting our specimen while fresh.

The uncoloured outline in the plate shows the entire panicle of the inflorescence from which the drawing was taken, in miniature; the part which is coloured is a branch or racemelet of the same, of the natural size.

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ROSA rubrifolia.

Lurid Rose.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. ROSACEÆ. *Jussieu gen.* 334. *Div. II.* ROSÆ.
ROSA. *Suprà vol.* 1. *fol.* 46.

Div. Rami impubes aculeati, setis nullis, stylis liberis. Lindley MSS.

R. *rubrifolia,* glauca; foliolis opacis ovatis eglandulosis discoloribus, dentium sinubus acutangulis, aculeis sparsis uncinatis minoribus, sepalis (foliolis calycinis) corollâ longioribus citò deciduis. *Lindley MSS.*

Rosa rubrifolia. *Villars dauph.* 3. 549. *Bellardi in act. taurin.* 1790. 229. *t.* 90. *Jacq. fragm.* 70. *t.* 106. *Willd. sp. pl.* 2. 1075. *Lapeyr. pyren.* 284. *Smith in Rees's cyclop. in loco. Redouté's roses.* 1. 35. *t.* 4.
Rosa rubicunda. *Hall. fil. in Rœmer's archiv. fur die bot.* 1. 2. 6.
Rosa canina β. *Suter fl. helv.* 1. 302.
Rosa lurida. *Andrews's roses.*
Rosa cinnamomea. γ. *Redouté's roses.* 1. 134.
Rosa. No. 1101. β. *Hall. Helv.*

Frutex 4-5-*pedalis.* ROSÆ caninæ *facie, sed ramis paulò gracilioribus: rami impubes teretes purpurei cerini, colore in latere soli adverso intensiore: aculeis stipularibus sparsisque solitariis æqualibus aduncis, adultorum pallidis parvulis quandòque rectiusculis apice incurvis.* Fol. *patentia glauca opaca rubrotincta:* stipulæ *glabriusculæ nudæ lineares, quandòque dilatatæ, apice ovatæ recurvæ, costâ et totâ basi sanguineis:* petioli *impubes subtùs virides suprà purpurascentes aculeis minimis raris aduncis armati, flexuosi:* foliola *oblonga, primordialia sæpiùs obovata v. truncata, simpliciter serrata, utrinque nuda, subtùs pallidiora.* Flores *parvi solitarii v. in cymis subtrifloris congesti, pro loco intensè v. dilutè rubri, planiusculi:* bracteæ *ovato-lanceolatæ purpureæ v. (in multifloris) lætè virides, nudæ, floribus approximatæ v. distantes.* Pedunculi *et* calycis tubus *ovatus nudi;* sepala *simplicia glandulosa et setigera, integra, petalis longiora.* Pet. *subintegra plana basi pallidiora.* Stam. *lutea.* Discus *depressus,* faucis *aperturam ferè claudens.* Ovaria *hirsutissima,* 15-20-25. Styli *breves liberi hirsuti exserti:* stig. *depressa.* Fructus *ovatus coccineus, sepalis deciduis.* Lindley MSS.

Native of the woods of Dauphiny, where it was found by Villars. It is also indigenous in the Alps of Savoy and Switzerland, in Austria about Gutenstein, among the Pyrenees, and on mountains in Auvergne.

Distinct from *canina* as this plant at first sight appears, a careful examination will show that, except colour, it has little to distinguish it from that species. It may however be known by its very glaucous purple aspect, by the small size of its red flowers, the very contracted orifice of the fruit, little

scattered recurved prickles, and by having its sepals (leaflets of the calyx) considerably longer than the petals. The last character we imagine to have induced M. Thory to think of referring it to *cinnamomea*, from which it certainly is divided as widely by nature as any individual of the genus.

Andrews has given a figure of it in a most luxuriant state under the name of *lurida*, by which it is known in the nurseries.

Bush 4-5 feet high, looking like the common Dog Rose, but with rather slenderer branches. *Branches* naked round purple waxen, the colour on the part next the sun much deeper: *prickles* scattered solitary equal hooked, of the full-grown branches small, sometimes nearly straight, recurved at the tip. *Leaves* spreading glaucous opaque tinged with red: *stipules* smoothish naked linear, sometimes dilated, ovate and recurved at the top, with midrib and the base entirely crimson: *petioles* naked green underneath, purplish above thinly beset with very small crooked prickles, flexuose: *leaflets* oblong, primordial ones generally obovate or truncate, simply serrate, naked on both sides, paler on the under. *Flowers* small solitary or gathered into cymes of about three, according to the situation they grow in, either of a deep or a faint red, flattish: *bractes* ovately lanceolate purple or (in the manyflowered ones) of a lively green, naked, near to or at a distance from the flowers. *Peduncle* and *tube of the calyx* ovate, naked; *sepals* (leaflets of the calyx) simple glandular and bristled, entire, longer than the petals. *Petals* nearly entire flat, paler at the base. *Disk* depressed nearly closing up the aperture of the faux. *Germens* very shaggy, 15-20-25. *Styles* short distinct shaggy protruded. *Stigmas* depressed. *Fruit* ovate scarlet, with deciduous leaflets. *Lindley MSS.*

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ROSA spinosissima; *reversa.*

Scotch Rose; with deflexed prickles.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. ROSACEÆ. *Jussieu gen.* 334. *Div. II.* Rosæ.
ROSA. *Suprà vol.* 1. *fol.* 46.

Div. Rami impubes aculeati setis persistentibus intermixtis. Lindley MSS.
R. *spinosissima,* armis valdè inæqualibus, foliolis opacis nudis rotundatis, stipulis linearibus, sepalis (foliolis calycinis) inermibus integerrimis, disco obliterato. *Lindley MSS.*
Rosa spinosissima. *Lin. sp. pl. ed.* 2. 1. 705. *Mill. dict. ed.* 8. *n.* 2. *Willd. sp. pl.* 2. 1067. *Smith fl. brit.* 2. 537. *Hort. Kew. ed.* 2, 3. 259.
Rosa spinis rectis, confertis foliis novenis glabris, pinnis et petiolis subspinosis. *Hall. helv. n.* 1106.
Rosa campestris odora. *Clus. hist.* 1. 116.
(α) Common scotch rose. *Engl. bot.* 187. *Miss Lawr. ros. t.* 48.
(β) Striped-flowered scotch rose. *Miss Lawr. ros. t.* 15.
(γ) Red scotch rose. *Miss Lawr. ros. t.* 62
(δ) Double scotch rose. *Miss Lawr. ros. t.* 63.
(ε) Tall scotch rose. *Miss Lawr. ros. t.* 19.
(ζ) Marbled scotch rose. *Miss Lawr. ros. t.* 78.
(η) *reversa,* pumila, cæsia, floribunda, armis tenuissimis inferioribus deflexis, sepalis glandulosis fructû ovato nigro, ovariis 40-50. *Lindley MSS.*
Rosa spinosissima. *Jacq. fragm.* 79. *t.* 124?
Rosa spinosissima nana. *Andrews's roses?*

(η) Fruticulus 2-*pedalis compactus:* rami *stricti, teretes, impubes, novelli virides aculeis gracillimis rectis inæqualibus rubentibus setisque intermixtis: adulti rufo-brunnei armis gracillimis innocuis valdè inæqualibus deflexis.* Folia *minima, densissimè conferta patentia cæsia;* stipulæ *lineares apice liberæ, glandulis rubidis ciliatæ; petioli impubes, glandulis minutis raris induti;* foliola 3-9 *omninò nuda ovata, simpliciter v. duplicato-serrata, suprà subglauca, infrà pallidiora, imbricata v. (rarò) distantia, concava, hinc sæpiùs contorta.* Flores *densissimè in ramis thyrsi instar solitariè congesti, odore debili, albi, medio flavescentes:* bracteæ *nullæ; pedunculi virides, nudi.* Calycis tubus *ovatus viridissimus nudus;* sepala *(foliola calycina) simplicia, petalis breviora, post anthesin reflexa, intùs tomentosa, extùs pilosiuscula, passim glandulosa v. setosa.* Pet. *concava, integra v. emarginata;* stam. *luteo-brunnea numerosa.* Discus *obliteratus.* Ovaria 40-50 *pilis densis omninò tecta;* styli *inclusi liberi;* stigmata *ochrea massâ depressa.* Fructus *ovatus niger erectus sepalis persistentibus.* Lindley MSS.

The present variety is supposed to be a native of Siberia; but we are unable to refer it to any thing of Pallas or Gmelin. It is known in some gardens under the name of ROSA *pimpinellifolia sibirica.*

If the Rosa *spinosissima*, figured by Jacquin in his *fragmenta*, is our plant, it must be a native of Austria, but the prickles in his plate are all horizontal. Besides, there is a specimen in the Banksian Herbarium from Jacquin, which is indisputably a different variety.

We are scarcely acquainted with a more charming shrub than this plant is in the spring, when it is adorned with a profusion of the most elegant white blossoms so closely disposed as almost to hide its delicate light blue foliage. The slender reflexed prickles distinguish it readily from all the varieties included under *spinosissima;* but the same character exists in Rosa *myriacantha* on the lower part of the shoots. This however is in other respects a very different species, and more nearly allied to Rosa *involuta* of our own highlands.

Were we disposed to be guided by those botanists whose aim is to multiply species, rather than reduce them, we should have little difficulty in forming a specific character which would distinguish our plant much better from Rosa *spinosissima* than many at present adopted are discriminated from each other; but we confess ourselves disposed to hold that characters must be subservient to nature, not nature to them. That a character far from worthless might be put together, the phrase distinguishing our variety will demonstrate. In this is for the first time introduced a difference obtained from the number of ovaria (germens) which are from 40 to 50 in the present variety, instead of from 15 to 20 and 30, as is usual in the common states of the *spinosissima* of the North of Europe.

We should observe that R. *reversa* of Waldstein and Kitaibel appears to be an essentially different plant, approaching more nearly to R. *involuta* of Sir J. Smith.

A little compact shrub of two feet in height: *branches* straight and firm, round, furless, when young green, with very slender straight unequal reddish prickles and intermingled bristles: when full grown reddish brown with very slender innocuous exceedingly uneven deflexed arms. *Leaves* among the least, most densely set together, spreading, light-blue; *stipules* linear, detached at the top, fringed with reddish glands; *petioles* furless, beset with minute thinly standing glands; *leaflets* 3-9, quite bare, ovate, simply or doubly serrate, slightly glaucous on the upper side, on the under paler. *Lindley MSS.*

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S. Watts sc.

PASSIFLORA tuberosa.

Forked-leaved Passionflower.

MONADELPHIA *PENTANDRIA.*

Nat. ord. PASSIFLOREÆ. *Jussieu in ann. mus.* 6. 102.
PASSIFLORA. Suprà vol. 1. *fol.* 13.

Div. Foliis bilobis.

P. *tuberosa*, foliis bilobis subtùs glandulosis, lobis oblongis erectis; pedunculis geminis. *Jacq. hort. schœnb.* 4. 49. *t.* 496.

Passiflora tuberosa. *Willd. enum.* 2. 697.

Passiflora punctata. *Miss Lawr. passionfl. Loddiges's bot. cabin. n.* 101; *(non aliorum).*

Frutex *glabriusculus*, radicibus *tuberosis*. Rami *compressi, anguloso-striati*. Fol. *oblonga, biloba cum lacinulâ in imâ furcâ aristatâ sæpiùsque minutâ lobisque cuneato-acuminatis plerùmque parallelis rariùs divaricatis tumque abbreviatis, 3-nervia, basi rotundata, majora sexuncialia latitudine 4-unciali, omninò viridia vel nunc disco pallentia, juniora nunc hepatico-fuscescentia, subtùs intra nervos 2 laterales bilineari-ocellata ocellis remotis glandulosis concavis albis cavitate madentibus fusco-marginatis, 2 ad basin folii positis majoribus lymphâ crystallinâ splendentibus:* petiolus *eglandulosus brevis (semuncialis v. circà):* stipulæ *parvæ, lineari-subulatæ, sæpè circùm ramum falcato-reflexæ:* cirrhi *simplices*. Pedunc. *gemini, filiformes, elastico-rigentes, 1-flori, subduplo longiores petiolo,* bracteolis 3 *sparsis approximatis membranaceis appressis lineari-subulatis paulò infra articulum muniti.* Flores *diametro biunciali v. circà, chloroleuci extùs obsoleto purpuro nimbati.* Cal. *urceolato-stellatus, coriaceus,* urceolo *brevissimo intùs vividissimè virente fundo externè plano,* segmentis *cuneato-oblongis angustis obtusis ¼ unciæ longis, quàm* petala *conformia concolora tenerrima triplo majoribus:* corona *duplex, bis brevior petalis,* exterior *numerosa simplex radiis contiguis crassiusculis cylindricis obtusulis introrsùm obliquè truncatis infernè vividè virentibus suprà albo et purpuro variegatis,* interior *plurimùm brevior simplex radiis exterioris concoloribus pluriès gracilioribus filiformi-clavatis erectis apice capitatis glanduloso-pruinatis.* Operculum *incumbens densè plicatum pruinosum viridi-pallescens puncticulis minutissimis densè conspersum:* nectar. *breve,* dissepimento *brevi carnoso crasso obsoletè dentato subduplicato introrsùm pruinoso.* Columna *parùm brevior calyce;* stipes *glaber, paulò brevior petalis:* fil. *ustulato-fuscescentes divaricato-recurva;* anth. *lineari-oblongæ, ustulato-nigricantes,* polline *flavo.* Germ. *subrotundum, opaco-virescens, obsoletè trigonum:* styli *horizontales, atro-purpurascentes, duplo longiores germine, filiformi-clavati, intùs sulcati:* stigmata *orbiculata, pulvinato-pileata, cernua, intensissimè virentia.*

We find by a manuscript note of Mr. Dryander's, that relying upon a figure in Miss Lawrance's designs of this genus, he had been of opinion that our plant might be the PASSIFLORA *capsularis*, a species taken up by Linnæus from

Plumier's figures. But it is clear that this his opinion did not amount to conviction, or he would have insertedthat species in the last edition of the Hortus Kewensis, where our plant is not to be found under any name. In regard to ourselves, a comparison of the plant itself with Plumier's figure, has proved that the two are essentially distinct; the leaves in *capsularis* are cordate at the base, not rounded as here, the lobes obliquely truncated much shortened and divaricate as in *rubra* (see above vol. 2. tab. 95) without any trace of the two parallel rows of small eye-like glands so conspicuous in those of *tuberosa*. That species appears in fact to be altogether much nearer to *rubra* than to the present. *Punctata*, for which our plant seems to have been sometimes mistaken, is widely different. It may be well to mention, that Mr. Dryander directs, in the above-mentioned note, that the synonym adduced to *capsularis* by Willdenow from Miller's works should be expunged, as the prototype specimen in the Banksian Herbarium shows that excellent horticulturist to have intended a different species; one nearer to *oblongata* than to either *capsularis* or *rubra*.

Tuberosa is native of the West Indian Islands, and was introduced many years ago.

The drawing was taken at the nursery of Messrs. Colville, in the King's Road, Chelsea; where the plant flowers abundantly for a long time in succession, and proves a very desirable ornament for the hothouse.

A high climbing smoothish *shrub*, with tuberous *roots*. *Branches* compressed, angularly fluted. *Leaves* oblong, twolobed with a small awned segment sometimes a mere awn in the fork of the division, rounded at the base, three-nerved, larger ones six inches long, four broad, sometimes of one colour, sometimes paler at the disk, young ones frequently of a liver-coloured brown, studded within the 2 lateral nerves, with a double row of small white glandular eye-like *dots* pitted in the centre, surrounded by a brown rim, the two nearest the base of the leaf larger than the rest, all filled at first with a crystalline liquid, *lobes* cuneate and taper-pointed generally parallel sometimes diverging and shortened: *petioles* scarcely exceeding half an inch in length, glandless: *stipules* small, linearly subulate, often bent falcately and reflexed so as to embrace the branch: *tendrils* simple. *Peduncles* in pairs, filiform, stiffish, elastic, one-

flowered, about twice as long as the petiole, furnished with 3 small closely scattered membranous flat-pressed linearly subulate *bractes* placed a little below the joint. *Flowers* about two inches across, greenish white, faintly clouded with purple on the outside. *Calyx* coriaceous, from urceolate below, radiately expanded above; *tube* or *urceolus* very shallow vividly green on the inside, flat at the bottom on the outside, *segments* ¾ of an inch long, cuneately oblong, narrow, obtuse, of the same shape and colour as the *petals*, which are three times smaller and of a very tender consistence: *crown* two-ranked, twice shorter than the corolla, *outer rank* numerous, close, simple, *radii* thickish cylindrical rather obtuse obliquely truncated from the top inwards, vividly green below, variegated with purple and white above, *inner rank* much shorter, simple, *radii* of the same colour as those of the outer rank, several times slenderer filiformly clavate upright capitate glandularly frosted at the top. *Operculum* or *lid* incumbent closely plaited frosted pale and greenish, thickly besprinkled with minute purple dots: *nectary* shallow, with a short fleshy thick obsoletely toothed partly double *partition* which is frosted at the inner side. *Column of fructification* a little shorter than the calyx; *shaft* smooth, but little shorter than the petals: *filaments* burnt-brown, divaricate and recurved; *anthers* linearly oblong, blackish; *pollen* deep yellow. *Germen* roundish, opaquely green, obsoletely three-cornered: *styles* divaricate, purplish black, twice as long as the germen, filiformly clavate, channelled inwards: *stigmas* orbicular, pileate or cap-headed, pulvinate or pillowed, cernuous, intensely green.

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MODECCA lobata; *mas.*

Lady Amelia Hume's Modecca; the barren-flowered plant.

DIŒCIA (*v.* MONŒCIA?) *PENTANDRIA.*

Nat. ord. PASSIFLOREÆ. *Jussieu in ann. du mus.* 6. 102.

MODECCA. *Flores* declines (dioici v. monoici). *Cal.* 5-fidus. *Petala* 5, calyci inserta. *Squamæ* (*Nectarium* Linn.) numero definitæ (5-10) raro nullæ. MAS. *Stamina* 5: *antheræ* stantes. FEM. *Caps.* (pedicellata) unilocularis 3-valvis polysperma. *Herbæ* (*Indiæ Orientalis, Novæ Hollandiæ et Africæ æquinoctialis*) *scandentes cirrhis axillaribus simplicibus vel è divisuris pedunculorum. Folia lobata v. indivisa basi et subtùs sæpiùs glandulosa. Pedunculi axillares apice divisi dichotomiis cirrhiferis.* Brown MSS.

M. *lobata*, dioica, esquamata, foliis integris tri-septemlobatisve eglandulosis basi cordatis, petiolo summo auriculato-glanduloso: nectario 5-scrobiculato esquamoso; corollâ inclusâ.

MAS. Pistillo abortivo.

FŒMINA. Staminibus abortivis.

Modecca lobata. *Jacq. fragm.* 82. *n.* 255. *t.* 131.

(MAS.) *Rami herbacei, sarmentosi, scandentes, teretes, nervosi.* Fol. *cucumerina, membranacea, flaccidiuscula, oblongo- vel subrotundo-cordata, subintegra v.* 3-5- *ad sub7lobata, suprà opaca, subtùs lucentia, 5-nervia, sub5-uncialia;* lobi *inæquales, apiculato-acuminati, repandi, sinubus latè rotundis intercepti;* petiolus *subtriplo brevior, teretiusculus sulco supino obsoleto, apice infra laminam bibullato-auriculatus auriculis parvis crassis ovato-oblatis basi connexis suprà convexis opacis, infrà concavis ocello glanduloso vitreo-splendente poro guttifero pertuso in fundo cavitatis.* Stipulæ 2 *spiniformes sphacelatæ ad basin petioli.* Pedunculi *cirrhosi, stricti, elastici, axillares, solitarii, plurimùm graciliores duplo longiores petiolo, supernè corymboso-pluri* (2-6?)*-flori, indè ultrà prehensili-intortis:* pedicelli 1*-flori breves* bracteolis *membranaceo-sphacelatis acuminatis subtensi.* Flores *suaveolentes.* Cal. *submembranaceus, luteo-virescens, oblongus urceolato-campanulatus, subuncialis pro tertiâ suâ parte 5-fidus, fundo extùs planiusculus;* urceolus *cylindricus, obsoletè pentagonus et basi sub5-torosus;* limbus *5-partitus, laciniis recurvo-patentibus, oblongis, ovato-acuminatis, 3 interioribus concavioribus margine tenuissimâ fimbriatâ, 2 exterioribus integris planiusculis.* Corolla *virescens, erecta, pentapetala, tubo calycino æqualis, periphæriæ carnosæ tomentosæ fundi calycis pone stamina inserta,* petala *angusta, staminibus alterna, spathulato-lanceolata ungue crasso viridissimo brevi, laminâ extenuatâ, pallidiore lanceolato-elongatâ, cochleari-concavâ, tandem conduplicandâ, fimbriâ membranosâ marginatâ.* Nectarium *è scrobiculis 5 subrotundis viridibus glabris fundo calycino in orbem contiguis.* Stam. 5, *imo disco corollæ inserta, erecto-conniventia, subæqualia coronæ:* fil. *viridia, subulata, firma, apice lutescentia, erecta, glabra, breviora antheris:* anth. *luteæ, lineari-elongatæ, à basi infixæ, versatiles, erectæ, ad latera in longum dehiscentes, apiculatæ, ante dehiscentiam 4-sulcæ.* Pistillum *abortivum.*

Modecca is an Indian word forming a member of the appellations under which two or three congeners of our plant appear in the Hortus Malabaricus; and has been adopted as a generic title in the Encyclopédie Botanique of Lamarck, where the genus was first recorded. We are not aware why the group has been wholly passed over in all the general systematic enumerations of plants; nor why it has not found a place in the Hortus Kewensis, as the present species was introduced many years ago by the late Lady Amelia Hume, and has continued to be cultivated from that time in the hothouse at Wormleybury, from whence, through the kindness of Sir Abraham Hume, we were supplied with the specimen for the annexed drawing.

The character at the head of the article is by Mr. Brown, and comprises the six species already observed, viz. 3 in the East Indies, 1 in New Holland by Mr. Brown, and two in Sierra Leone, of which the present is one.

Our sample belonged to the barren-flowered side of the species, which is dioicous; as that which afforded the figure to Jacquin, did, we have no doubt, to the fertile-flowered side.

(Barren plant.) Perennial: *branches* herbaceous, sarmentose. *Leaves* membranous, oblongly or roundly cordate, nearly entire or divided into 3-5- and sometimes partly into 7, lobes, opaque at the upper side shining at the under, 5-nerved; lobes pointed: *petiole* about 3 times shorter, with two glandular oblately ovate fleshy earlets at the top, each of which is hollow underneath, with a white glossy eye-like oozing gland in the centre of the cavity. *Peduncles* cirrhose, stiff, elastic, axillary bearing a corymb of several flowers at the upper part, beyond which they are spirally coiled and prehensile. *Flowers* fragrant: *calyx* yellowish green, urceolately campanulate, oblong, 5-cleft for about $\frac{1}{3}$ of its length, *segments* of the *limb* ovately pointed recurved, 3 outer ones with a finely fringed edge, two inner plain. *Corolla* enclosed in the tube of the calyx, greenish, upright, 5-petalled: *petals* narrow, spatulately lanceolate, with a short thick fleshy unguis, a lanceolately elongated attenuated blade with a fringed border. *Nectary* of five small green pits forming a circle at the bottom of the flower.

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MURRAYA exotica.

Ash-leaved Murraya. Chinese Box-Tree.

DECANDRIA *MONOGYNIA.*

Nat. ord. AURANTIA. *Jussieu gen.* 259. *Div. II.* Fructus polyspermus baccatus. *Fol. pellucido-punctata.* AURANTIA VERA.
Orangers. *Corrêa in ann. mus.* 6. 376.
MURRAYA.Cal. 5-dentatus. *Cor.* campanulata, pentapetala. *Germ.* biloculare loculis singulis *ovulis* 2 subpendulis summitati axeos annexis. *Bacca* supera bilocularis, *seminibus* solitariis lanatis. *Embryo* inversus: *albumen* nullum. *Roxb. MSS; (ex anglico).*

M. *exotica*, foliis alterno-pinnatis, foliolis quinis v. septenis, obliquè obovato-oblongis: corymbis terminalibus globosis congestis. *Roxb. MSS.; (ex anglico).*
Murraya exotica. *Murray in commentat. götting.* 9. 186. *t.* 1. *Gærtn. sem.* 2. 76. *t.* 93. *f.* 5. *Hort. Kew.* 2. 59. *ed.* 2. 3. 36. *Willd. sp. pl.* 2. 548.
Murræa exotica. *Linn. mant.* 563.
Chalcas paniculata. *Linn. mant.* 68. *Houtt. nat. hist. (edit. belg.)* 5. 57. *t.* 24. *f.* 2.
Chalcas japonensis. *Loureiro. cochin.* 271.
Chalcas cammuneng. *Burm. ind.* 104.
Marsana buxifolia. *Sonnerat it.* 2. 245. *t.* 139.
Camunium japonense. *Rumph. amb.* 5. 29. *t.* 18. *f.* 2.

Arbuscula *sempervirens*, *frondosissima:* rami *supernè flexuosi virentes*, *elastico-rigentes*, *teretes*, *obsoletiùs villosi*, *petiolique variè verruculosi.* Fol. *ascendentia*, *sparsa*, *impari-pinnata;* petiolus communis *strictus elasticus pruinoso-pubescens;* foliola *membranacea*, *patentia*, *rigidiuscula*, *subalterna*, *profundè lucidèque virentia*, *punctato-pellucida*, *approximata*, *obovato-oblonga*, *subsessilia*, *obtusa acumine brevi v. nunc emarginata*, *longè deorsùm cuneata*, *subtùs pruinoso-pallentia*, *sesqui-biuncialia*, *latitudine unciali v. majore.* Cymi *terminales axillaresque*, *numerosiflori*, *conferti*, *breviores foliis;* pedunculo communi *viridi*, *terete*, *stricto*, *supernè subtrichotomo;* flores *odoratissimi*, *nivei*, *opaci*, pedicellis *brevibus* bracteolâ *appressâ ad basin.* Cal. *minimus*, *turbinatus*, *pruinoso-pubens*, *pallidè virens*, *5-fidus*, *segmentis acuminatis carinatis erecto-distantibus*, *lateribus membranosis inflexis.* Cor. *turbinato-connivens*, *infrà imbricato-contigua*, *suprà recurva:* petala 5, *longa*, *obovato-cuneata*, *subunguiculata.* Stam. 10, *erecto-divergentia*, *alterna longiora præcociora æqualia corollæ:* fil. *alba*, *linearia*, *transversè compressa*, *acuta*, *omninò distincta*, disco *carnoso hypogyno subcupulato virenti inserta:* anth. *didymo-quadrangulares lobis 2-loculosis.* Pist. *æquale corollæ:* germ. *obovato-oblongum*, *compressiusculum*, *opacum*, *pallidum*, *vesiculoso-punctatum*, *obtusè subanceps*, *triplo brevius stylo:* stylus *continuus*, *elongato-cylindricus*, *obsoletè clavatus*, *curvulus:* stig. *peltato-capitatum*, *suprà pulvinatum splendensque.*

In the East Indies, according to Dr. Roxburgh, this pecies is generally seen in the state of a large bushy shrub,

sometimes in the form of a smaller sort of tree, with a pale cinereous bark. It is known to have been brought many years ago from China to the Coast of Coromandel, where it has continued to be universally cultivated in the gardens ever since. It has likewise been found not unfrequently in the wild state among the mountains of the Northern Circars. Not long ago an unrecorded species was introduced into the Botanic Garden at Calcutta, where it is now cultivated under the specific name of *sumatrana,* from its native Island Sumatra. Dr. Roxburgh describes this as differing from *exotica* in being much less bushy, with larger leaves, fewer and bigger flowers, and a very distinct habit.

Exotica was introduced by Mr. B. Torin in 1771; and proves a most desirable evergreen for either the conservatory or the greenhouse. It is delightfully fragrant, and the opaque snow-white blossom forms a pleasing contrast with the bright deep green of the foliage. The species appears to be a great favourite with the Chinese; whence it is known among the French in the Isle of France by the name of *Buis de Chine.* The drawing was made from a sample that flowered in the fine collection of Comtesse de Vandes, at Bayswater.

The genus makes one of the same ordinal group as the Orange Tree.

The wild plant is described by Dr. Roxburgh as follows: "*Leaves* scattered pinnate with an odd one: *leaflets* generally in 3 pairs, alternate, obovate-oblong, emarginate, smooth, of a deep shining green, $1\frac{1}{2}$-2 inches long, about 1 broad, lowermost smallest: *petioles* glandular, round. *Corymbs* terminal, crowded, with pretty large beautifully and purely white exquisitely fragrant flowers. *Calyx* 1-leaved, 5-parted, glandular; segments erect pointed. *Anthers* oblong. *Germen* glandular, 2-celled with 2 ovula in each cell vertically attached to the uppermost part of the partition. *Berry* superior, 2-celled: *seeds* solitary, 1-2, oblong, pointed above, flat on one side, woolly: *embryo* inverted, albumenless." The fruit is about the size of a largish Pea; has a leathery rind, beset with small miliary glands like that of an Orange.

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CRYPTOSTEGIA grandiflora.

Large-flowered Cryptostegia.

PENTANDRIA *DIGYNIA.*

Nat. ord. ASCLEPIADEÆ. *Brown in trans. Wern. soc.* 1. 19. *Div. III.* *Massæ pollinis* 5-20, granulosæ, (granulis è sphærulis 4 compositis), solitariæ, usque quaternatim apici dilatato corpusculi singuli stigmatis affixæ. *Filamenta* partìm vel omninò libera. PERIPLOCEÆ. *Brown loc. cit.* 56.

CRYPTOSTEGIA. *Cor.* infundibuliformis: *tubus* squamis 5, inclusis (bipartitis subulatis), laciniis limbi alternantibus. *Stamina* inclusa, imo tubo inserta; *filamentis* distinctis: *antheris* basi stigmate cohærentibus. *Glandulæ* 5, spathulatæ, angulorum stigmatis pollen granulosum (simplex) colligentes. *Ovaria* 2. *Styli* 2. *Stigma* (commune) pentagonum. *Folliculi* *****. *Semina* comosa. Frutex *volubilis, glaber.* Folia *opposita.* Pedunculi *terminales, 3-fidi.* Flores *speciosi.* Corolla *æstivatione contorta.* Folliculi *angulati, divaricatissimi.* Brown MSS.

Cryptostegia grandiflora. *Brown MSS.*
Nerium grandiflorum. *Roxburgh Flor. ind. ined. Carey hort. beng.*

The above generic character is another of the contributions from the pen of Mr. Brown, which we have been so fortunate as to be the means of imparting to the public. To those who are aware of the vast store of knowledge from which the various groups for the use of science are combined by that eminent naturalist, the circumspection and sagacity with which they are adopted, and the accuracy with which they are defined, no appreciation of ours can be necessary to enhance the value of the present we now offer in the three genera constituted and defined by that masterly hand in this fasciculus.

CRYPTOSTEGIA is founded upon a single species, native of the peninsula of India, where it was first observed by Dr. Roxburgh and strangely mismatched by him with the species of the genus NERIUM, belonging to the *Apocyneæ;* while our plant belongs to the third section of Mr. Brown's *Asclepiadeæ,* distinguished from the other sections by granular solitary pollen-masses and filaments which are distinct in whole or in part. CRYPTOSTEGIA is however conceived by Mr. Brown to be the link by which the two orders connect through his genus CRYPTOLEPIS also a native of India and a climber.

We have elsewhere stated the main technical differences

relied on by Mr. Brown to keep separate the *Asclepiadeæ* from the *Apocyneæ* to be, that the *pollen* in the former is applied to the stigma by an indirect and intermediate process, while in the latter it reaches its destination directly and of itself; circumstances associated to a proportionate influence upon the general habit of the two orders.

The present genus is remarkable for 5 glandular spoon-like processes placed at the angles of the stigma, in which the pollen is deposited previous to its arrival at its ultimate destination; a character that brings the genus within the confines of the order where it now stands.

The drawing was made from a specimen sent us by the kindness of Sir Abraham Hume, by whom the plant is cultivated in the hothouse at Wormleybury, where it flowered last summer, we believe, for the first time in Europe. In the Botanic Garden at Calcutta, it is said to be in blossom through most of the year, but rarely to seed. The following is Dr. Roxburgh's description of the plant.

"*Stem* erect and woody: *bark* smooth, greenish ash-colour: *branches* twining up and over trees of very considerable size, every part abundantly milky when wounded. *Leaves* opposite, short-petioled, oblong, entire, obtuse, pointed, polished on both sides, underneath minutely netted, about 3 inches long by 1½ broad. *Flowers* terminal, from one to many, forming a dichotomous raceme with one in the fork, very large, pale pink. *Bractes* conically lanceolate, opposite, caducous. *Calyx* five-leaved: *leaflets* ovate-lanceolate, with ample thin curled margins. *Corolla* campanulate, half five-cleft. *Scales* 5 attached to the tube of the corolla, immediately above the stamens, each divided into long filiform coloured segments. *Filaments* short, inserted in the contracted base of the corolla: *anthers* cordate, incurved in the form of a dome over the stigma. *Germens* 2, 1-celled, each containing many *ovula*, attached to a large projecting fleshy receptacle on the inside: *styles* 2 at the base, coalescing near the top: *stigma* single, large, globular, bifid at the apex, with 5 glands round its sides which are firmly attached to the inside of the 5 anthers, near their base, between these are 5 dark-coloured spear-shaped scales, which become detached by age."

The name was suggested to Mr. Brown by the circumstance of the enclosure of the five-scaled crown within the tube of the corolla, and its not being exposed to view as in other bordering genera.

NOTES.

IRIS. *Vide suprà vol. 3. fol. 246.*

Specierum Synthesis.

Rhizoma elongatum crassum solidum horizontale, raro totum in caudicem assurgens: folia ensiformia collaterali-disticha.

Imberbes.

tripetala *. *Elliot sketch of the bot. of S. Carol. and Georgia.* 1. 46. Iris tridentata. *Pursh amer. sept.* 1. 30.

pseud-Acorus. *Eng. bot. t.* 572.

spuria.
- spuria; α. *major. nob. in Curtis's Magaz. fol.* 1131. Iris halophila. *nob. loc. cit. tab.* 875.
- spuria; β. *minor. Curtis's Magaz. tab.* 50.
- spuria; γ. *ochroleuca. nob. in Curtis's Magaz. fol.* 1131. Iris ochroleuca. *loc. cit. tab.* 61. Iris Monnieri. *Redouté liliac. tab.* 236.
- spuria; δ. *halophila. nob. in Curtis's Magaz. tab.* 1131. Iris ochroleuca. *Redouté liliac. tab.* 354.
- spuria; ε. *desertorum. nob. in Curtis's Magaz. tab.* 1514. Iris spathulata. *Willd. enum. suppl.* 4.
- spuria; ζ. *stenogyna. nob. in Curtis's Magaz. tab.* 1515. Iris stenogyna. *Redouté liliac. tab.* 310.

fœtidissima. *Eng. bot. tab.* 596.

graminea. *nob. in Curtis's Magaz. tab.* 681.

ensata. *Vahl enumer.* 2. 148.

biglumis. *Vahl enumer.* 2. 149. Iris an spuria? *Pallas iter.* 3. *append.* 26. *t.* C. *fig.* 1.

tenuifolia. *Pallas iter.* 3. 714. *t.* C. *fig.* 2. *Herb. Banks.*

ventricosa. *Pallas iter.* 3. 712. *t.* B. *fig.* 1. *Herb. Banks.*

sibirica.
- sibirica. *Curtis's Magaz. tab.* 50. Iris pratensis. *Redouté liliac. tab.* 237.
- sibirica; β. *flexuosa. nob. in Curtis's Magaz. tab.* 1163. Iris flexuosa. *Vahl enumer.* 2. 131.
- sibirica; γ. *sanguinea. nob. in Curtis's Magaz. tab.* 1604. Iris orientalis. *Vahl enumer.* 2. 127. Iris sanguinea. *Donn hort. cantab. ed.* 6. 17.

virginica. *nob. in Curtis's Magaz. tab.* 703. Iris hexagona. *Walt. flor. carol.* 66.

lacustris †. *Nuttall gen.* 1. 23; *(species inquirenda).*

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* Iris *tripetala.* *Root* creeping. *Stem* slender, two feet high. *Leaves* shorter than the stem, linear-ensiform. *Flowers* solitary. *Exterior segments* of the corolla large, twice as long as the stigmas, nearly acute, unbearded: *interior* larger than the style, three-toothed; the two *interior teeth* obtuse; *the middle one* longer, acute. *Stigmas* two-toothed near the base. *Capsule* nearly cylindrical, obscurely three-angled, very acuminate.—*Found in the ponds of St. John's and St. Stephen's; and appears to be very circumscribed in its habitat, as I have heard of it in no other part of the country.* Elliot's sketch of the botany of South Carolina and Georgia. 1. 46.

† Iris *lacustris.* *Flowers* without a bearded crest; *leaves* short ensiform; *scape* much shorter than the leaf, one-flowered; *petals* nearly equal? attenuated on the tube; *capsule* turbinate, three-sided, margined; *seeds* somewhat round and smooth; *root* tuberous. *Found on the gravelly shores of the calcareous Islands of Lake Huron, near Michilimakinak. I have seen no perfect specimens, and therefore recommend the examination of this plant to others. It appears to be allied to* Iris cristata. Nuttall's Genera of North American plants, &c. 1. 23.

prismatica. *nob. in Curtis's Magaz. tab.* 1504. Iris gracilis. *Bigelow florula boston.* 12.
triflora. *Redouté liliac.* 8. *tab.* 481.
versicolor. *Curtis's Magaz. tab.* 21.
fulva. *nob. in Curtis's Magaz. tab.* 1496. Iris cuprea. *Pursh amer. sept.* 1. 30.
ruthenica. *nob. in Curtis's Magaz. tabb.* 1123, 1393. Iris humilis. *Marsch. à Bieb. taur. cauc.* 1. 33.
verna*. *Pursh amer. sept.* 1. 30; *(non aliorum).*
unguicularis. *Vahl enumer.* 2. 143. Iris stylosa. *Desfont. flor. atlant.* 1. *tab.* 5.

Barbatæ *vel* Subbarbatæ.

susiana. *Curtis's Magaz. tab.* 91. Iris iberica. *Marsch. à Bieb. taur. cauc.* 1. 30.
cristata. *Curtis's Magaz. tab.* 412. Iris verna. *Vahl enumer.* 2. 147. *atque Linnæi.*
pumila. *Curtis's Magaz. tab.* 9.=*var. lutea. nob. loc. cit. tab.* 1209.=*var. violacea. nob. loc. cit. tab.* 1261.
lutescens. *Vahl enumer.* 2. 134. Iris virescens. *Redouté liliac. tab.* 163.
arenaria. *Waldst. et Kitaib. plant. rar. hung.* 3. *tab.* 220. *Redouté liliac. tab.* 296.
flavissima. *Jacq. ic. rar.* 2. *tab.* 220.
subbiflora. *nob. in Curtis's Magaz. tab.* 1130. Iris biflora. *Vahl enumer.* 2. 131; *(atque Linnæi.)*
variegata. *Curtis's Magaz. tab.* 16.
lurida. *nob. in Curtis's Magaz. tabb.* 662, 986.
sambucina. *Curtis's Magaz. tab.* 187; *(genuina* squalens *Linnæi)*.=*var. squalens. nob. loc. cit. tab.* 787.=Iris flavescens. *Redouté liliac. tab.* 375.
hungarica. *Waldst. et Kitaib. plant. rar. hung. tab.* 226.
japonica. *Vahl enum.* 2. 129.
florentina. *nob. in Curtis's Magaz. tab.* 671.
germanica. *nob. in Curtis's Magaz. tab.* 670.
bohemica. *Schmidt flor. bohem.*
pallida. *nob. in Curtis's Magaz. tab.* 670. Iris germanica. *Flora græca. tab.* 40. Iris odoratissima. *Jacq. hort. schœnb.* 1. *tab.* 9; *(genuina* sambucina *Linnæi).*

aphylla.
- aphylla; α. *nudicaulis. nob. in Curtis's Magaz. fol.* 870. Iris amœna. *Redouté liliac. tab.* 336; *(non verò* hungarica. *Waldst. et Kitaib. hung.)*
- aphylla; β. *Swertii. nob. in Curtis's Magaz. fol.* 870. Iris Swertii. *Redouté liliac. tab.* 306.
- aphylla; γ. *plicata. nob. in Curtis's Magaz. tab.* 870. Iris plicata. *Redouté liliac. tab.* 356.

dichotoma. *nob. suprà vol.* 3. *tab.* 246.

* Judging of the Linnean Iris *verna*, from the prototype specimen in the Gronovian Herbarium, and the synonym adduced from Plukenet, we have scarcely a doubt of its identity with Iris *cristata* of the Hortus Kewensis. The Iris *verna* of Mr. Nuttall is plainly the same as *cristata*. But if Mr. Pursh's specific character is correct, his *verna* is as plainly distinct.

Iris *verna*; imberbis acaulis, uniflora, foliis longissimis gramineis glaucis, tubo longissimo, petalis subæqualibus, capsulis subrotundis ad terram sessilibus. *Pursh amer. sept.* 1. 30; *(excluso synonymo Willdenovii).*

Found on the high mountains of Virginia and Kentucky; plentifully on the Cacapoon mountains near Winchester. Flowers pale blue striped with purple. After all, Iris *verna* is, in our mind, still an apocryphal species.

chinensis. *Curtis's Magaz. tab.* 373. IRIS fimbriata. *Redouté liliac. tab.* 152.

moræoides. *nob. in Curtis's Magaz. fol.* 1407, *in notâ; et suprà in notis volumini 4to appensis.* MORÆA iridioides. *nob. in Curtis's Magaz. tab.* 623. IRIS compressa. *Vahl enumer.* 2. 137. MORÆA vegeta. *Miller's dict. ed.* 8; *(non verò Linnæi, ea enim* MORÆA tristis).

Radix tuberosa. Folia angulata.

IMBERBES.

tuberosa. *Curtis's Magaz. tab.* 531. IRIS reticulata. *Marsch. à Bieb. taur. cauc.* 1. 34.

Bulbus tunicatus. Folia canaliculata, à plano bifaria.

xiphioides. *nob. in Curtis's Magaz. tab.* 687.

Xiphium. *nob. in Curtis's Magaz. tab.* 686.

lusitanica. *nob. in Curtis's Magaz. tab.* 679.

juncea. *Vahl enumer.* 2. 145. *Planta Tournefortii et Poireti; ab insequente distincta satis. Exemplar spontaneum in Herbario Dom. Lambert.*

mauritanica. *nob. in Curtis's Magaz. vers. fol.* 986. *Clus. cur. post.* 24. juncea. *Desfont. flor. atlant. tab.* 4. *Exemplar spontaneum in Herbario Dom. Lambert.*

alata. *Lamarck encyc.* 3. 303. IRIS scorpioides. *Desfont. flor. atlant. tab.* 6. *Redouté liliac. tab.* 211. IRIS microptera. *Vahl enumer.* 2. 142. IRIS transtagana. *Brotero flor. lusitan.* 1. 52.

persica. *Curtis's Magaz. tab.* 1. IRIS caucasica. *Marsch. à Bieb. taur. cauc.* 1. 31.

IRIS, although represented by a greater or less number of species in all the four quarters of the globe, has not yet been observed within the tropics. The figure which is found among the drawings of the Bengal plants in Sir Joseph Banks's library, and which we had formerly adopted under the title *bengalensis*, is clearly either *florentina* or *pallida*, and taken from a plant which had been derived from some European importation.

SPECIES NOBIS MINUS NOTÆ VEL INCERTÆ.

acuta. *Willd. enum. suppl.* 4. odorata. *Persoon syn.* 1. 53; *very near to sibirica.*

sordida. *Id. eod. loc.*

barbata. *Id. eod. loc.*

elegans. *Persoon syn.* 1. 53.

IRIS fugax. *Tenore flor. neapolit.* 1. 15. *tab.* 4; belongs to MORÆA; and if not, MORÆA *Sisyrinchium* with an elongated branching many-flowered stem, an unrecorded species, and makes the second European MORÆA now known.

We know of only one species of IRIS from Southern Africa; viz. *moræoides* from the Cape of Good Hope. In Northern Africa several have been observed, and only one MORÆA, viz. *Sisyrinchium*, though that genus is so numerous and various in the Southern parts.

VESTIA *lycioides.* *Suprà vol.* 4. *fol.* 299.

At the time we published the article concerning this species, a comparison of our plant with the figure and description of PERIPHRAGMOS *fœtidus* in the Flora Peruviana had nearly convinced us, as it had Willdenow before us, that in spite of a curious coincidence between the general appearance, and especially between some remarkable features of the two, they could never belong to one species or even genus. Since then a prototype sample of the plant intended in the Flora Peruviana has been remitted to Mr. Lambert by Don José Pavon, one of the two respectable authors of that yet unfinished national work; and the inspection of it has now left us without a doubt that PERIPHRAGMOS *fœtidus* is the same species as VESTIA

lycioides. We have found that the marks which misled us, in common with Willdenow, exist only in the defectiveness of the figure and description in the Flora Peruviana, and do not belong to the plant itself. Some unaccountable error has occurred in regard to the seedvessel, attributed in both figure and description to this plant; for such seedvessel evidently belongs to a plant of a different family. VESTIA has been properly separated from PERIPHRAGMOS, or at least from the other species which had been combined with it under that generic title; for besides other differences, as Mr. Brown observed to us, the very essential feature of an imbricate æstivation belongs to the corolla of PERIPHRAGMOS, while in VESTIA the æstivation of the corolla is valvular. Owing to the same misrepresentation that misled us, the species has been reduced by Jussieu, in the Annales du Musèum, to the genus CANTUA, belonging to the order *Polemonia (Polemonideæ).*

The following synonymy should be subjoined to that already in the article cited at the head of this note.

Periphragmos fœtidus. *Ruiz et Pavon flor. peruv.* 2. 17. *t.* 132; *(fide exempl. prototypi in Herbar. Dom. Lambert; exclusis tamen figurâ descriptioneque fructûs operis citati).*
Cantua ligustrifolia. *Jussieu in ann. du musèum.* 3. 118.
Guevillguevill. *Vernaculè Peruvianis.*

ANGELONIA *salicariæfolia. Suprà fol.* 415.

The following synonym may be added.

Angelonia salicariæfolia *Kunth nov. gen. et spec.* 2. 303.

Mr. Herbert informs us, that Messrs. Humboldt and Bonpland have erred in supposing this species to be annual; and that it is decidedly perennial, with a suffrutescent stem. The same gentleman has propagated it by cuttings, and says that it requires to be kept with a pan of water under the garden pot in which it is kept in the summer time.

HELICONIA *Bihai. Suprà fol.* 374.

Add to the synonymy of that article.

Heliconia humilis. *Redouté liliac. t.* 382.

In Vol. 3. fol. 229; 2d page of the first leaf, line 11 of the English text, for "that genus" read "the genus MORÆA."

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Vol. 2. Fol. 102. l. 5. for "53." read "334."
Vol. 4. Fol. 264. l. 6. for "*Brown prod.* 350." read *Brown prod.* 520."
Fol. 361. The whole of the English part of that article, from the paragraph beginning "What are termed leaves, &c. &c." belongs to the article (Acacia *longifolia. fol.* 362) the one next to it.
Fol. 361. l. 14. pro "*Wild.*" lege "*Willd.*"
Fol. 367. l. 23. à calce pag. pro "leucostincta" lege "leucosticta"
Fol. 369. 10. post "D." insere "*hirta,*"
Fol. 370. l. 20. ante "*Hort.*" insere "*Ejusd.*"
Fol. 384. l. 18. pro "*Murr. in commentar. gotting.*" lege "*Murr. in commentat. gotting.*"
Fol. 385. pag. 2. l. 6. pro "*serici*" lege "*seriei.*"
Fol. 386. l. 13. pro "355." lege "353."
Fol. 395. l. 12. pro "*Lin. syst. veg.* 639." lege "*Lin. syst. veg. ed.* 13. 529."

END OF VOL. V.

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